

THE INLAND PRINTER



*A Baby Satyr
Copyright 1906 by H. V. Brock*

PRICE 30 CENTS

JUNE 1906

VOL. XXXVII, NO. 3

C. B. PRESCOTT, Treas.
T. HENRY SPENCER, Asst. Treas.

Valley Paper Co.



Manufacturers of
Chemically Pure
PHOTOGRAPHIC PAPER
For Platinum Printing, Bromide Printing,
Solar Printing,
Holyoke, Mass., U. S. A.

- "Valley Paper Co. No. 1 Bond 1906"
No. 1 Bond Regular List
"Commercial Bond 1906"
One-half Regular List
"Valley Library Linen"
For High-grade Papeteries
"Valley Paper Co. Linen Ledger 1906"
A Strictly No. 1 Ledger
"Commercial Linen Ledger" } Lead all the
"Our Ledger" } No. 2 Ledgers
"French Linen," wove and laid
Cream Laid Linen and White Wove Bond
The Foremost of No. 1 Linens
"Old English Linen and Bond"
Standard for Fine Commercial Work
"Congress Linen and Bond"
The best low-priced Linen and Bond made
"Old Valley Mills 1906" Extra-superfine
"Valley Paper Co. Superfine"
As good as the best
"Valley Forge" Flats Extra-fine quality

THESE PAPERS ARE UNSURPASSED FOR QUALITY AND
UNIFORMITY. SAMPLES CHEERFULLY FURNISHED.

Holyoke, Mass., U. S. A.

Become an Artist Printer



The Inland Printer Technical
School offers instruction in the
**PRINCIPLES OF DESIGN
AND LETTERING** in con-
nection with the regular course
in **JOB COMPOSITION**,
without extra charge.

Six Weeks, \$25

*Inland Printer Technical
School*

120-130 Sherman St., Chicago

IN PRESS

Lettering for Printers and Designers

By THOMAS WOOD STEVENS

A comprehensive treatise on the art of
lettering with many interesting modern
examples, together with tables and
measurements valuable to constructors
of advertising matter

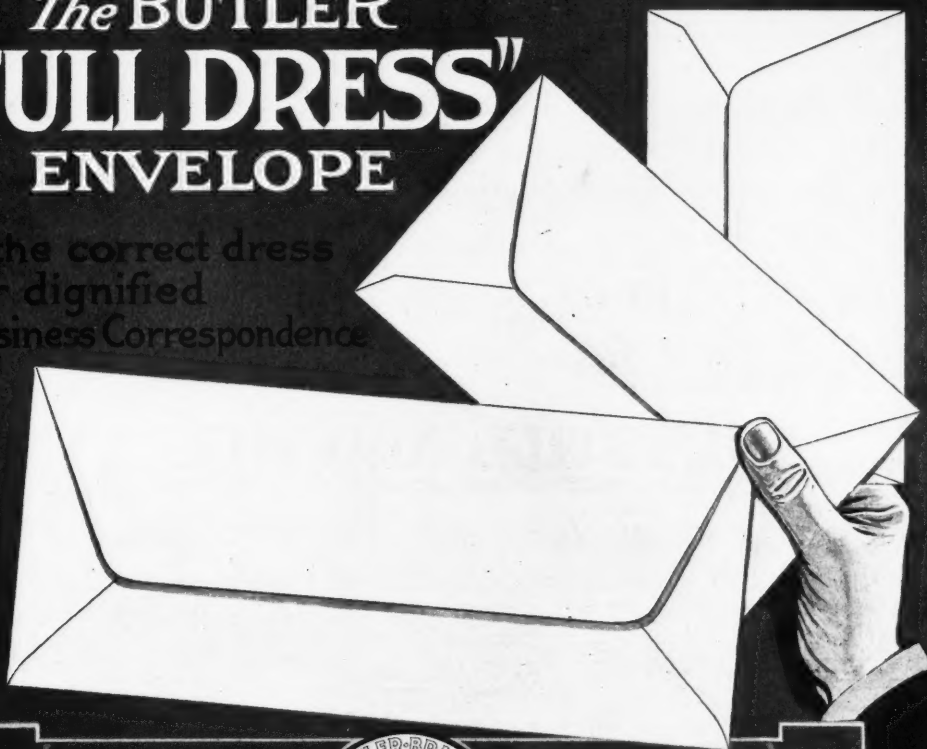
Price One Dollar

THE INLAND PRINTER COMPANY
Chicago and New York

To be Correct Commands Respect

The BUTLER
"FULL DRESS"
ENVELOPE

is the correct dress
for dignified
Business Correspondence



THESE BUSINESS ENVELOPES

are made in the regular commercial and official sizes, Nos.
6, 6 $\frac{3}{4}$ and 10, in both XX and XXX weights, from
Clear, White Rag Stock.

Most business envelopes closely resemble one another and are opened
face down. The enlarged space offered in the Full Dress flap is highly
appreciated, as it furnishes an attractive space for the printing of the return
card or a trade-mark.

Every Printer

should carry a stock of these envelopes and call his customers' attention to them.

SEND FOR SAMPLES TO - DAY

J. W. BUTLER PAPER CO.
CHICAGO

WE LEAD!

It pleases us to announce to the trade that we have the largest plant ever devoted to the manufacture of *Machinery for Bookbinders, Printers, Lithographers, Paper Mills, etc.*

Two Strong Points { **Quality**
Quantity

You have both when you buy

SEYBOLD MACHINERY

QUALITY of work is the very best.

QUANTITY greater than can be done on any other make of machinery. These are money-making features. Your customer wants the *Quality* to be unequaled. You want the *Quantity* as well as the *Quality* in order to turn out work profitably.

PATENTEES AND BUILDERS

— OF —

Seybold Continuous Feed Trimmer
Paper Cutters—Six styles and eight sizes
Embossers—Eight styles and fourteen sizes
Rotary Board Cutters
Balanced Platen Standing Press
Seybold Book Compressor
Round-corner Cutters
Signature Press

Smashing Machines
Knife Grinders
Duplex Trimmer
Embosser with Feeding Attachment
Special Photo-mount Embosser
Table Shears
Die Press
Backing Machines

THE SEYBOLD MACHINE CO.

Main Office and Factory, DAYTON, OHIO

NEW YORK

CHICAGO

LONDON

BERLIN

TORONTO

Southern Agents, J. H. SCHROETER & BRO., Atlanta, Ga.

THE J. L. MORRISON CO., Toronto, Can.

The *intrinsic merit* of

Old Hampshire Bond

has made it the recognized standard for commercial correspondence and high-grade business literature.

Its water-mark, always recognized, means as much as Sterling does to silver, and its well-known quality pervades even to the print-shop that supplies it.

The printer who knows never loses an opportunity to cement his trade by using the bond with the "crackle of quality."

YOU know the possibilities of Old Hampshire Bond, and your customer will appreciate them too if you give him the opportunity. It is just such service as this that takes a print-shop out of the rut.

Hampshire Paper Company

*The only Paper Makers in the World making Bond Paper
exclusively*

South Hadley Falls, Mass.



The New York Office of Oswego Machine Works has just been opened at 150 Nassau St., with Mr. Walter S. Timmis as Manager.

Mr. Timmis' long and varied experience with the highest grades of machinery insures the most careful attention to any of the finer requirements of cutting.

WHEN we advertised a few years ago "Difficult Propositions Required," we got them, and *were glad to*. Any one can do the easy jobs. Only a few can do the hard ones well. Only one line of cutting machines fulfils all the present exacting requirements of the progressive handlers of paper and printing, and that is the BROWN & CARVER and OSWEGO complete line of *sixty* sizes and styles. Everything from the 16-inch Bench Cutter to the 9-ton Automatic Clamp Cutting Machine (each with one, two or three points of excellence on no other) is generally kept in stock for instant shipment at Oswego.



THE BROWN & CARVER AUTOMATIC CLAMP CUTTER,
IS A TRIPLER OF PRODUCTION

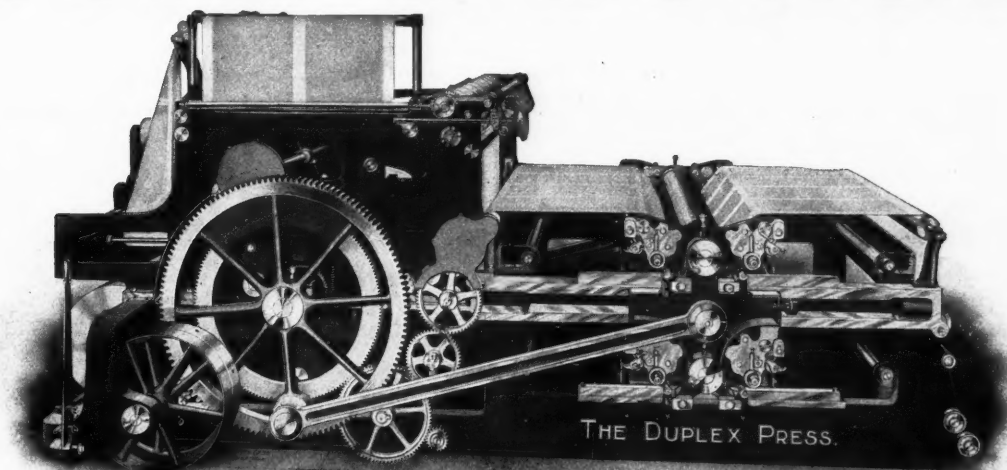
OSWEGO MACHINE WORKS MAIN OFFICE AND WORKS
OSWEGO, N. Y.

NIEL GRAY, JR., Proprietor

NEW YORK OFFICE, 150 Nassau Street
WALTER S. TIMMIS, Manager

CHICAGO OFFICE, 277 Dearborn Street
J. M. IVES, Manager

THE DUPLEX



Flat-Bed Web-Perfecting Newspaper Press

Prints 5,000 to 6,000 per hour of either 4, 6, 8, 10 or 12 page papers
WITHOUT STEREOTYPING

Honolulu, T. H., *Bulletin*
Madison, Wis., *Democrat*
Berkeley, Cal., *Gazette*
Cleveland, Ohio, *Herold*
Charlotte, N. C., *News*
12-page, second purchase
La Crosse, Wis., *Tribune*
Massillon, Ohio, *Independent*
Elkhart, Ind., *Truth*
12-page

Salina, Kan., *Journal*
Guthrie, Okla., *Leader*
Pasadena, Cal., *News*
12-page

San Francisco, Cal., *Recorder*
Poughkeepsie, N. Y., *News*
Nashua, N. H., *Telegraph*
12-page, second purchase
Woonsocket, R. I., *La Tribune*
Edmonton, N. W. T., *Bulletin*
Pottstown, Pa., *News*
12-page

Jackson, Miss., *News*
Du Bois, Pa., *Express*
Crookston, Minn., *Times*
Fort William, Ont., *Times-Journal*
St. Johns, N. F., *News*
" " *Telegram*
12-page

Marlboro, Mass., *Enterprise*
Lancaster, Pa., *News*
Stroudsburg, Pa., *Times*

Lancaster, Pa., *Intelligencer*
Twin presses, second purchase
Sydney, N. S., *Record*
" " *Post*

Corning, N. Y., *Leader*
12-page, second purchase
Hot Springs, Ark., *Sentinel-Record*
Kingston, Jamaica, *Gleaner*
Second purchase
Muskogee, I. T., *Democrat*
Emporia, Kan., *Gazette*

SOME of OUR RECENT CUSTOMERS

Fitchburg, Mass., *Sentinel*
12-page, second purchase
Bristol, Tenn., *Herald*
Chicago, Ill., *Dzinnik Narodowy*
Hammond, Ind., *News*
Alliance, Ohio, *Review*
Lancaster, Pa., *Examiner*
12-page, second purchase
Cheyenne, Wyo., *Tribune*
Chicago, Ill., *W. Smulski Pub. Co.*

Elizabeth, N. J., *Times*
12-page, second purchase
Mt. Vernon, Ohio, *Republican-News*
New Brighton, N. Y., *Staten Islander*
Leadville, Colo., *Herald-Democrat*
Second purchase
Plattsburg, N. Y., *Sentinel*
St. Louis, Mo., *Record*
Jackson, Mich., *Patriot*
12-page, second purchase
South Framingham, Mass., *News*
Zurich, Switzerland
Sioux Falls, S. D., *Press*
Moncton, N. B., *Times*
" " *Transcript*

Toledo, Ohio, *Amerika Echo*
Twin presses
Sidney, Ohio, *News*
Wilmington, N. C., *Dispatch*
San Francisco, Cal., *New World*
12-page
Santa Barbara, Cal., *Independent*
Brandon Manitoba, *Sun*
Marquette, Mich., *Mining Journal*
12-page
Charleston, W. Va., *Mail-News*
San Bernardino, Cal., *Times-Index*
Havana, Cuba, *Post*
12-page
Long Island City, N. Y., *Star*
Zanesville, Ohio, *Sunday News*

OUR CUSTOMERS WRITE OUR ADS.

DUPLIX PRINTING PRESS CO. BATTLE CREEK, MICH.
MAY 15, 1906

RELIABLE
Printers' Rollers
FOR
Summer Use



**Sam'l Bingham's Son
Mfg. Co.**

FACTORIES

CHICAGO

195-207 South Canal Street

PITTSBURG

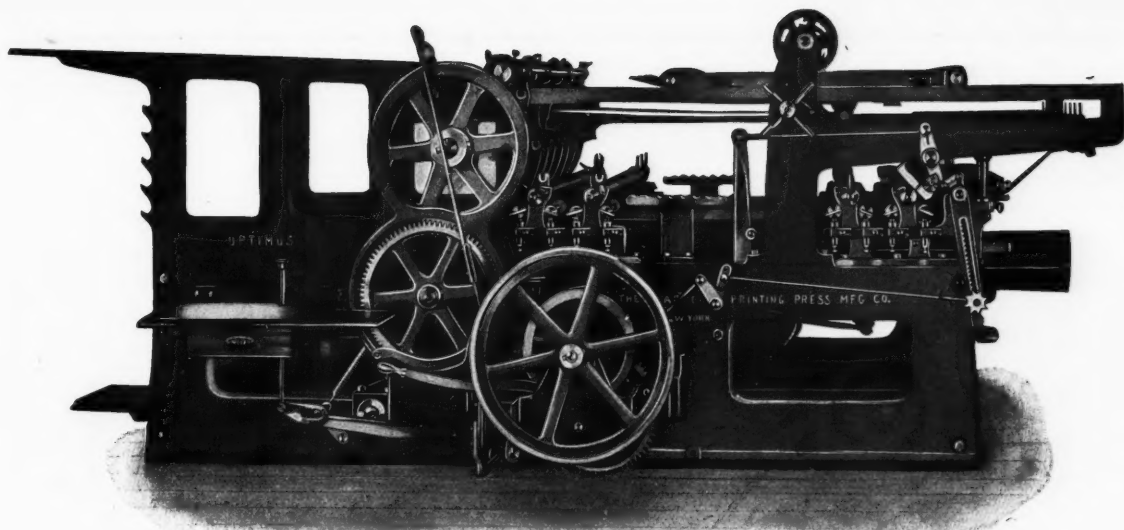
First Avenue and Ross Street

ST. LOUIS

21-23 South Third Street

KANSAS CITY

Fourth and Broadway



THE HEAVIEST, SIMPLEST, MOST COMPACT AND HANDSOMEST TWO-REVOLUTION. COMPARE THIS ILLUSTRATION WITH THAT OF ANY OTHER

THE BABCOCK PRINTING PRESS MANUFACTURING CO., NEW LONDON, CONNECTICUT
 New York Office, 38 Park Row. John Haddon & Co., Agents, London. Millar & Richard, Canadian Agents, Toronto, Ontario

BARNHART BROS. & SPINDLER, WESTERN AGENTS, 183-187 MONROE STREET, CHICAGO
 Great Western Type Foundry, Kansas City; Great Western Type Foundry, Omaha; Minnesota Type Foundry Co., St. Paul; St. Louis Printers Supply Co., St. Louis; Southern Printers Supply Co., Washington; The Barnhart Type Foundry Co., Dallas; E. C. Palmer & Co., Ltd., New Orleans; Fundicion Mexicana de Tipos, City of Mexico. On the Pacific Coast—The Southwest Printers Supply, Los Angeles; Pacific Printers Supply House, Seattle; Pacific States Type Foundry, San Francisco.

The Babcock Optimus

In the modern two-revolutions the bed motion is some adaptation of a movable gear which in two of its positions engages a rack attached to the bed. The gear is thrown back and forth or up and down, and the shoes are moved in and out at the end of each stroke of the bed, by separate and independent mechanisms more or less complex.

The best device for any purpose is that which gives the desired result with fewest parts and least motion. Pre-eminently conforming to this is the Optimus patented ball-and-socket bed mechanism. It has few parts. It is direct. It is an absolutely perfect motion, free from fault, and practically indestructible. It is only a shaft with the driving pulley at one end and the star gear at the other. The ball-and-socket motion makes one end of this shaft deflectable so that the star gear engages the single rack from above at one stroke of the bed, and from below at the next. There is nothing more, and no other motion except rotation. The double rack and different mechanisms receiving power from different sources are eliminated.

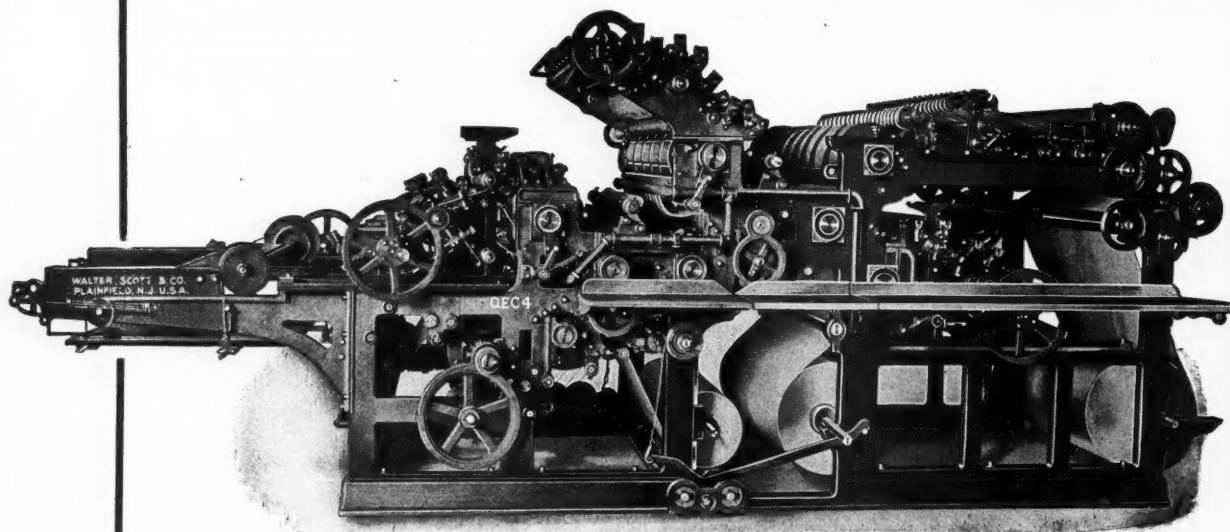
Each end of the rack is fitted with a large hardened steel ball to engage the star gear. The socket in the gear is absolutely spherical, giving perfect contact between gear and rack, with large wearing surfaces. The shoes, bolted solidly in position, are small and curved to exactly fit the gear roll, to which they give little motion. They run for years without needing adjustment.

The star gear is of large size. One-third of its time is devoted to reversing the bed. This, with the centrally placed air chamber, gives a reverse that is the smoothest and easiest known.

There is not an Optimus built within the last ten years that is out of register between bed and cylinder today. On no other press is it possible to print long runs with as little wear to forms.

With its superior driving mechanism it combines all that is essential in a press to do the best printing that can be done. Especially is it rigid under impression and accurate of register. Distribution is ample and under precise control. Its sheet delivery is the best. It is unequalled in many vitally important ways.

SET IN BARNHART BROS. & SPINDLER'S OLD ROMAN CONDENSED.



PRINTERS SHOULD KNOW

THAT THE

SCOTT ALL SIZE ROTARY

CUTS OFF AND PRINTS

ANY LENGTH OF SHEET

AT A SPEED UP TO

7,000 per Hour

AND DELIVERS THE PRODUCT

FLAT ON A DELIVERY TABLE

READY FOR FOLDER OR PAPER CUTTER

SEND FOR ALL SIZE WEB CATALOGUE

Rebuilt Two-revolution Presses:

Campbell, 37 x 42, 43 x 56, 40 x 60
 Cottrell, 35 x 52, 38 x 54
 Potter, 36 x 52, 2 and 4 rollers
 Hoe, 36 x 51, 4 form rollers
 Whitlock, 45 x 62, 4 form rollers
 Huber Perfector Beds, 46½ x 64

Walter Scott & Company

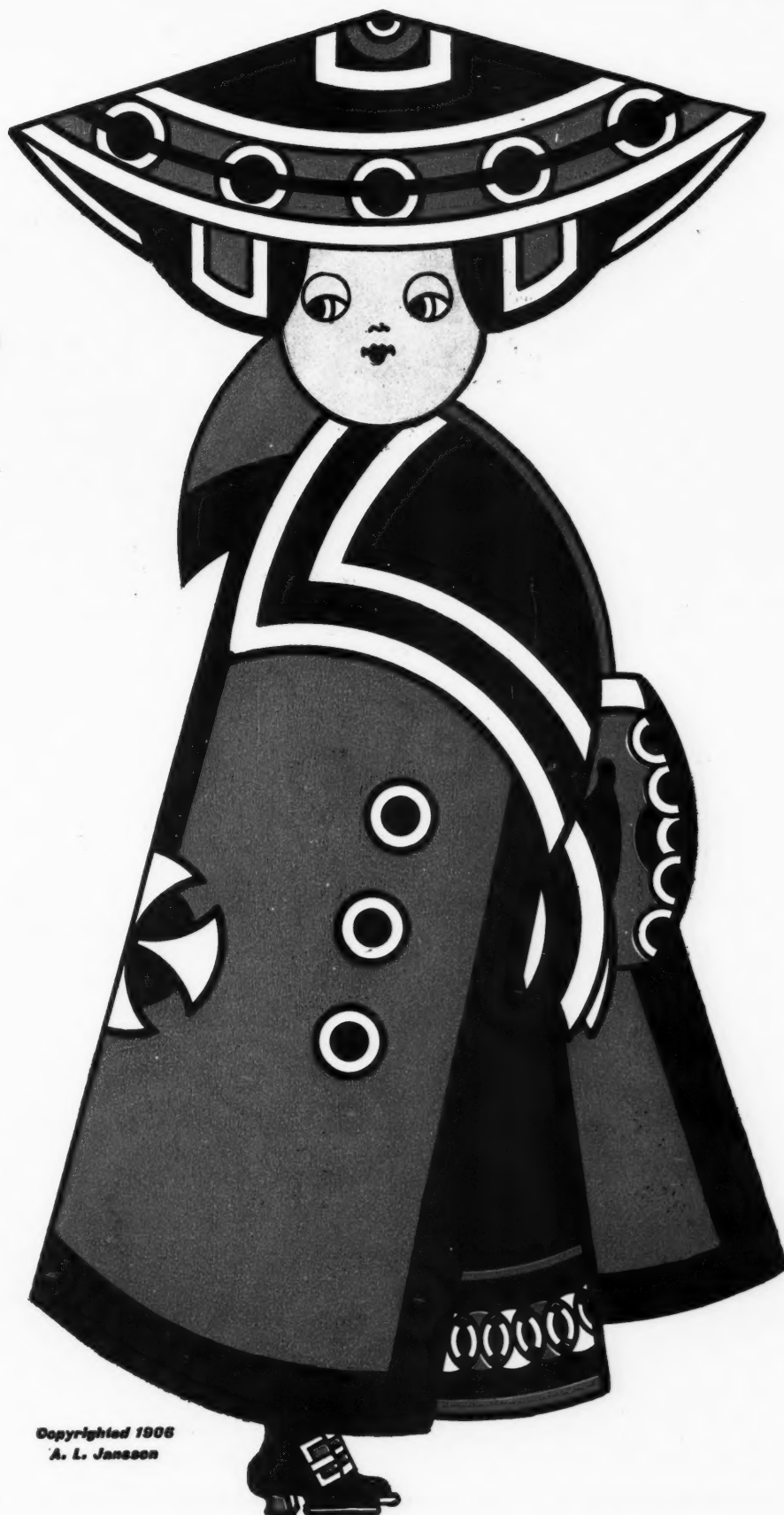
PLAINFIELD, NEW JERSEY, U.S.A.

NEW YORK OFFICE, 41 Park Row.
 ST. LOUIS OFFICE, 319 N. 4th St.

CHICAGO OFFICE, 321 Dearborn St.
 BOSTON OFFICE, . . . 7 Water St.

Cable Address—WALTSCOTT, New York.

It..Satisfaction..Gives
QUEEN CITY INK



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A. L. Jansson

H. D. BOOK, 40.

BROWN, 3463.

BLUE, 603.



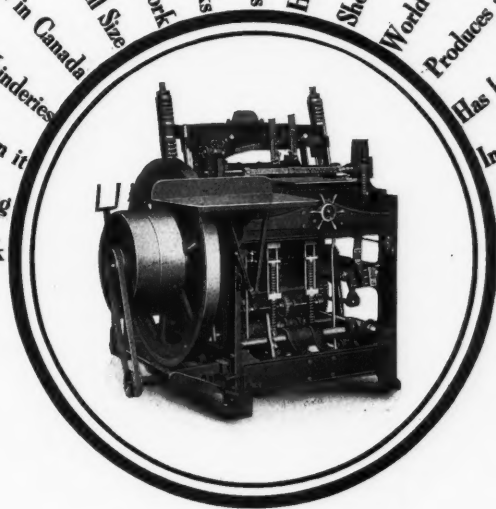
DUAL-TONE PHOTO BROWN, 2133.

The Queen City Printing Ink Co.

**Makers of High-Grade
≈ PRINTING INKS ≈**

CINCINNATI • CHICAGO • BOSTON • PHILADELPHIA

Produces superior "flexible" cover work
 Pocket prayer-books done on Small Size
 Used in all parts of the U. S. and in Canada
 In all the largest British binderies
 Oxford Bibles are done on it
 40 to 60 per cent saving
 Uniformity of work
 Handles hand or machine sewed books
 Rounds and backs at one process
 Handles books from $\frac{1}{4}$ to $3\frac{1}{2}$ in. thick
 Shows profit on lots of 25 books
 World's Atlas done on Extra Large Size
 Produces superior heavy law and medical work
 Has handled a book weighing 20 pounds
 In 94 United States binderies
 4 binderies use 5 or more each
 Perfect "flat-back" work



The sun never sets on
Crawley Rounders and Backers

(Write for Circular No. 10 x)

Made and sold in America by

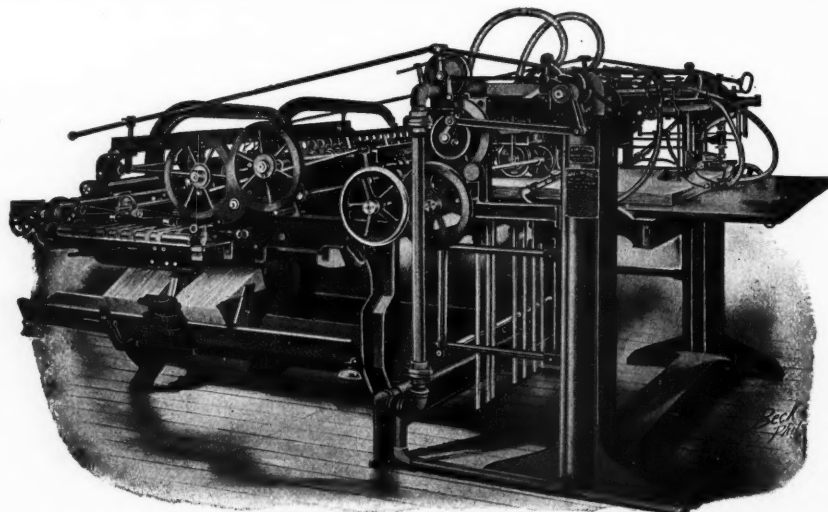
THE CRAWLEY BOOK MACHINERY COMPANY
 Newport, Ky., U. S. A.

Agents:

E. C. FULLER CO., New York and Chicago, U. S. A.
Agents in the Americas.

HOBBS MANUFACTURING CO., 37 Featherstone Street, London, E. C.
Sole Agents for British Isles.

T. W. & C. B. SHERIDAN CO., Salisbury Square, London, E. C.
Sole Agents for Continental Europe.



Patent No. 768,375. August 23, 1904.

THE CHAMBERS DROP-ROLL DOUBLE-SIXTEEN FOLDER WITH KING FEEDER ATTACHED.

The Chambers Paper Folding Machines

have a successful business record of over forty years, while the

King Automatic Feeder

has now a proven record of nearly three years constant hard use under many different conditions.

AMONG OUR CUSTOMERS FOR KING FEEDERS ARE

Curtis Publishing Co.....	Philadelphia.....	18	Methodist Book Concern.....	New York City.....	1
Times Printing House.....	".....	2	J. J. Arakelyan.....	Boston, Mass.....	1
Mr. Geo. F. Lasher.....	".....	6	Western Methodist Book Concern, Cincinnati, Ohio,		3
Historical Publishing Co.....	".....	1	Peruna Drug Mfg. Co.....	Columbus, Ohio.....	1
American Lithographic Co.....	New York City.....	2	Egbert, Fidler & Chambers.....	Davenport, Iowa.....	1
Doubleday, Page & Co.....	".....	2	Inland Printer Co.....	Chicago, Ill.....	1
Williams Printing Co.....	".....	1	Kenfield Publishing Co.....	".....	1
Chas. Schweinler Press.....	".....	1			

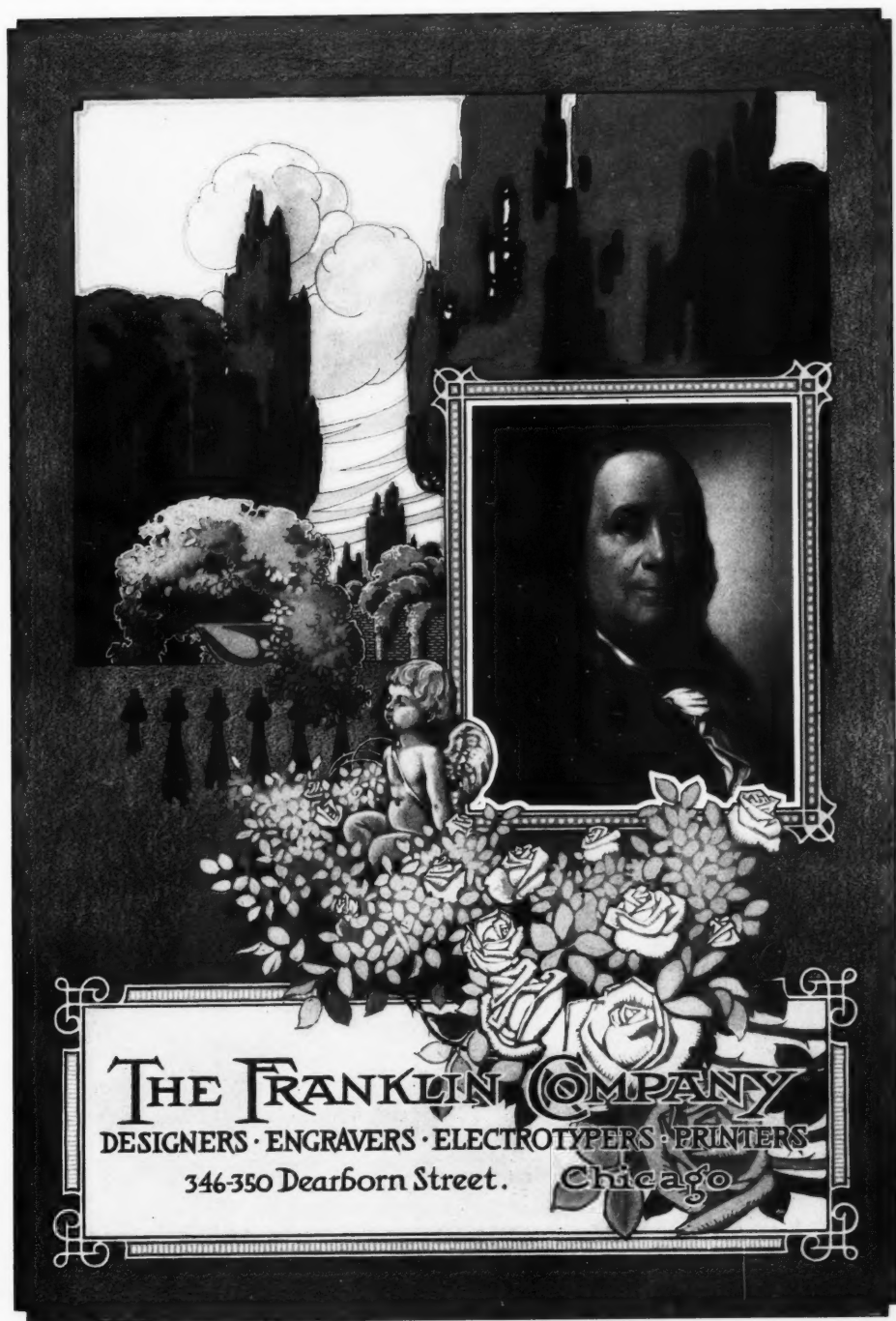
CHAMBERS BROTHERS COMPANY

Folding and Feeding Machines

PHILADELPHIA, PENNSYLVANIA

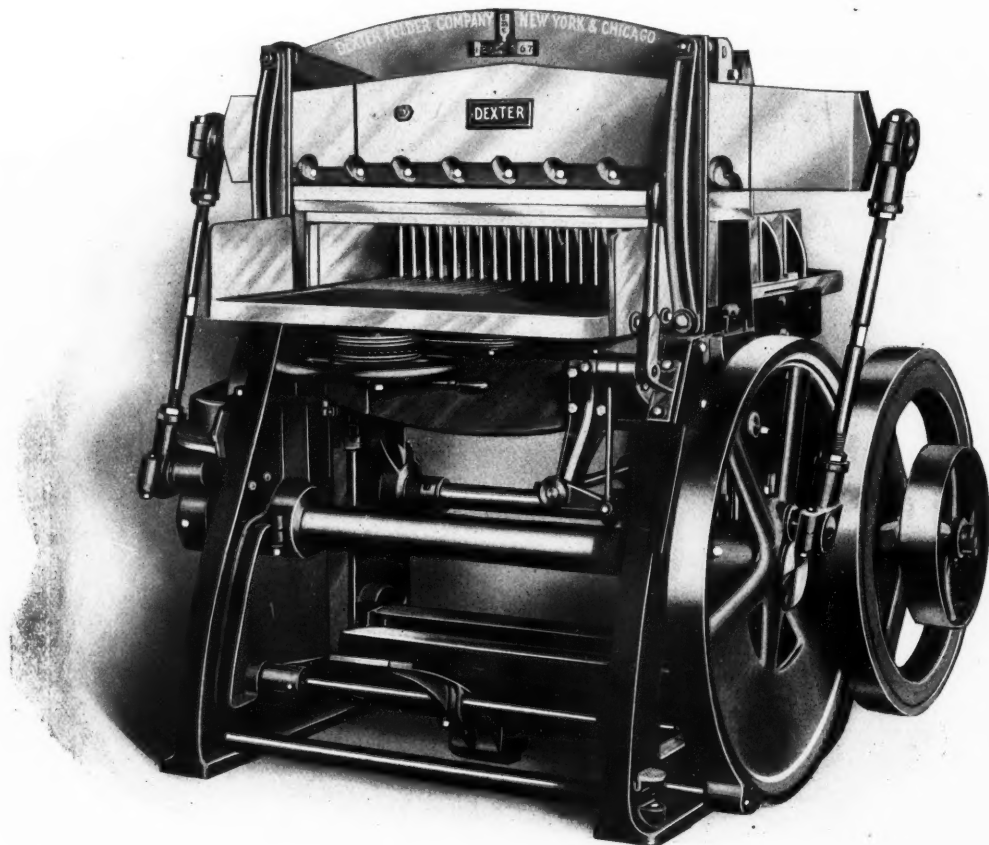
CHICAGO OFFICE, 59 WEST JACKSON BOULEVARD

Agent for Great Britain, W. H. BEERS, 170 EDMUND STREET, BIRMINGHAM



THE FRANKLIN COMPANY
DESIGNERS · ENGRAVERS · ELECTROTYPERS · PRINTERS
346-350 Dearborn Street. Chicago

Cutter Facts



We have entered the Cutter field with the best Automatic Clamp Cutting Machine manufactured.

As it is without doubt the most thoroughly built cutter on the market, it is in no sense a cheap machine.

We were a long time getting ready — tested this machine for two years before placing it upon the market — but are now here and here to stay.

We claim this to be the heaviest, strongest built and simplest cutter manufactured. It has the fewest parts and the greatest strength both in cutting and clamping power.

We offer this machine with every confidence, knowing it will more than hold its own with the very best of other makes.

Shall we send you descriptive matter?

DEXTER FOLDER CO.

MAIN OFFICE AND FACTORY—PEARL RIVER, N. Y.

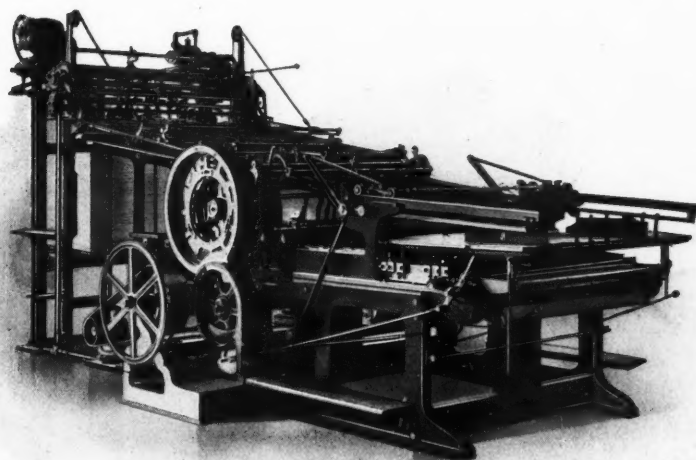
NEW YORK

CHICAGO

SAN FRANCISCO

BOSTON

Price as an Argument



THE DEXTER AUTOMATIC PRINTING PRESS FEEDER

We do not make price an argument. Our prices are generally the highest, but as our machines are in every way superior, they are in the end very much the cheapest.

The success of Dexter Press Feeding Machines is not due to mere boast as to points of superiority on our part. We back all our statements as to Speed, Accuracy and Durability by mechanism which produces the necessary qualities.

A feeding machine is made up of a good many parts that are common to feeding machines in general. The devices that make our machines superior profit producers are covered by Dexter patents.

OUR MACHINES MAY BE IMITATED, BUT THE FEATURES THAT MAKE THEM THE MOST VALUABLE MUST BE OMITTED.

Ask for detailed description of Dexter's Profit Producers.

S A L E S A G E N T S

Great Britain and Europe
T.W. & C.B. SHERIDAN Co., London, Eng.
Canada, J. L. MORRISON Co., Toronto
Australia, ALEX. COWAN & SONS
Melbourne, Sydney, Adelaide
South Africa, JOHN DICKINSON & Co.
Cape Town, Johannesburg and Durban

DEXTER FOLDER CO.

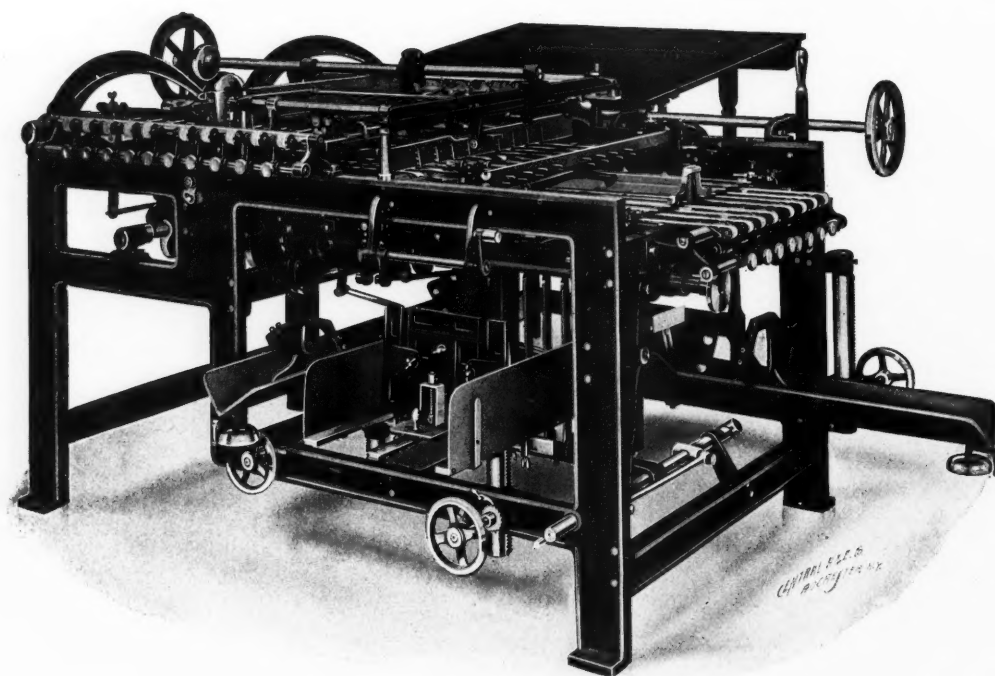
MAIN OFFICE AND FACTORY—PEARL RIVER, NEW YORK

BRANCH OFFICES:

NEW YORK BOSTON CHICAGO SAN FRANCISCO

Southern Agents—J. H. SCHROETER & BRO., Atlanta, Ga.
Mexico—LOUIS L. LOMER, Mexico City

The
"TOGO"
Catalog and Book Folder



For Fine Art Catalog Makers.

Performs its work both in *regular* and *oblong* folds.
Folds 6, 8, 10, 12, 16, 18, 20, 24 and 32 pages.

Made by

Brown Folding Machine Company

Erie, Pa., U. S. A.

A g e n c i e s

New York, . . . Thos. Crofts
150 Nassau Street

London, W. C., J. Collis & Sons
42 Regent Square, Gray's Inn Road

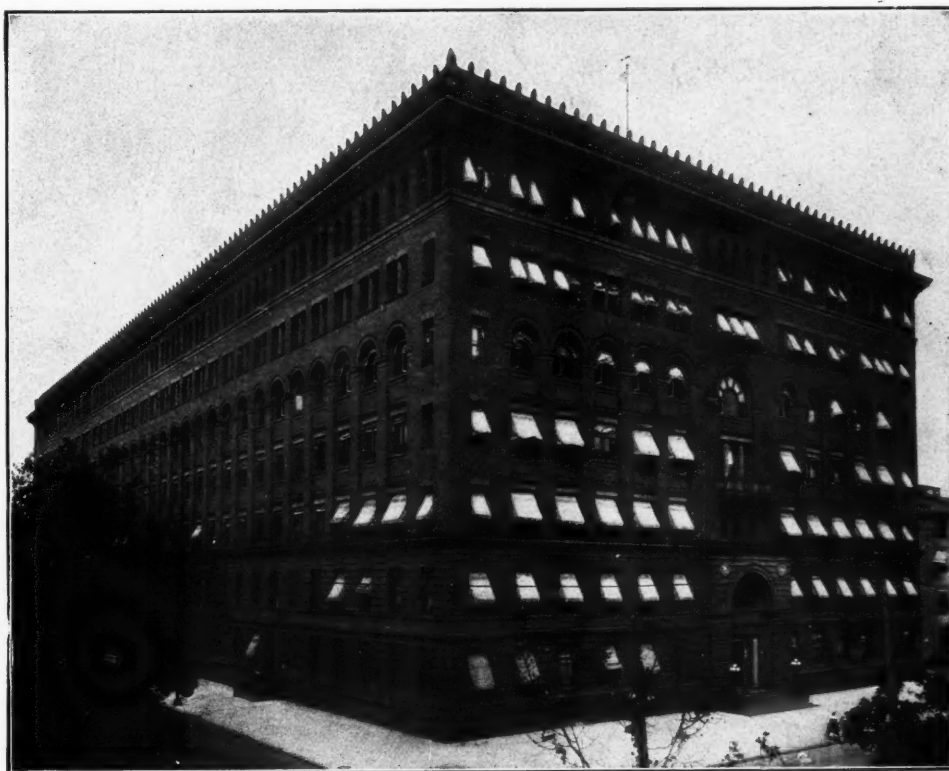
Chicago, Champlin & Smith
121 Plymouth Place

Sixty Carloads of **Hamilton** Cabinets

and Printers' Furnishings for *Uncle Sam*

Uncle Sam *always* buys the *best*, and always after the most rigid, impartial *investigation*. The Government is a true economist. It has the money to buy what it wants, and it wants *quality* that will *last* and withstand the wear of the years. Uncle Sam bought HAMILTON goods *exclusively* for his Model Printing-office.

WISE PRINTERS DO LIKEWISE



New Government Printing-office, Washington, D. C.

¶ The above illustration shows the largest and finest printing plant ever erected in the history of the world. It is equipped throughout with our Modern Printing-office Furniture. This does not mean that in any particular room there may be two or three cabinets of our manufacture, but from cellar to garret, in every department, this modern printing plant contains Hamilton's Printing-office Furniture—in all more than sixty carloads, all giving perfect satisfaction, and without one word of complaint from so critical a customer since the material was installed.

¶ In addition to this fine Government equipment we have supplied material for the Government Printing-offices in Tasmania, Australia, South Africa, France, Germany and England, Singapore, and the new Government Printing-office at Manila, Philippine Islands.

Hamilton

Quality is *Standard* Quality.

Hamilton sets the pace.

¶ For sale and carried in stock by all first-class dealers in Printers' Supplies.

The Hamilton Mfg. Co.

Main Office and Factories, TWO RIVERS, WIS.

Eastern Office and Warehouse, RAHWAY, N. J.

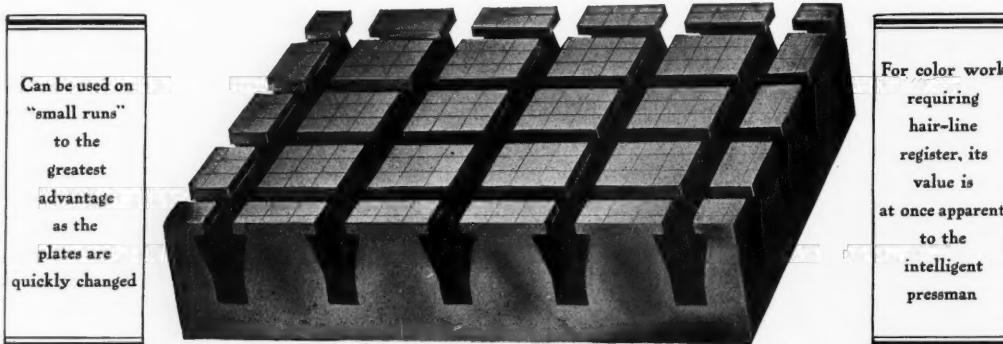
— A valuable little LINE-GAUGE, graduated to Picas and Nonpareils, mailed free to any printer who asks for it. —

Profitable to the Printer—Labor-Saving to the Pressman

The "Unique" Block

(MADE OF STEEL, NOT CAST IRON)

Embodies the only absolutely perfect principles of a plate-locking device for letterpress printing on
FLAT-BED OR ROTARY PRESSES



Can be used on
"small runs"
to the
greatest
advantage
as the
plates are
quickly changed

For color work
requiring
hair-line
register, its
value is
at once apparent
to the
intelligent
pressman

Actual size of smallest section— $2\frac{1}{2} \times 3\frac{1}{2}$ or 16x20 picas



Narrow Margin Clamp

Of this "Unique" over 10,000
large sections and 120,000
clamps are already in use in the
best printing offices in
the United States.



Regular Clamp

The "Unique" Block possesses manifold advantages for any and all kinds of plate printing.

Our system of BLOCKS consists of four standard-size sections: 8×10 , $2\frac{2}{3} \times 10$, $3\frac{1}{3} \times 8$ and $2\frac{2}{3} \times 3\frac{1}{3}$ inches, by means of which any size bed can be filled in two minutes, then the CLAMPS dropped in AND locked up with the common RATCHET. Other sizes of sections cut to order.

An equipment of "Unique" Blocks will more than pay for itself in a short time, for it is the greatest time-saver in the pressroom.

New Clamp for Label Work

Is the latest addition of improvement. Plates can be locked on the "Unique" Rockstroh Block with margins of hair-space all around every plate. Write for special information on this point.

Send for Pamphlets, Price Lists, Etc.

ROCKSTROH MANUFACTURING CO.

ATLANTIC AVENUE AND CHESTNUT STREET, BROOKLYN, N. Y., U. S. A.

CHICAGO OFFICE, 396 South Clark Street—W. G. LOOMIS, Manager

PHILADELPHIA OFFICE, 624-626 Filbert Street

BOSTON, MASS.

Represented by RICHARD PRESTON, 167 Oliver Street

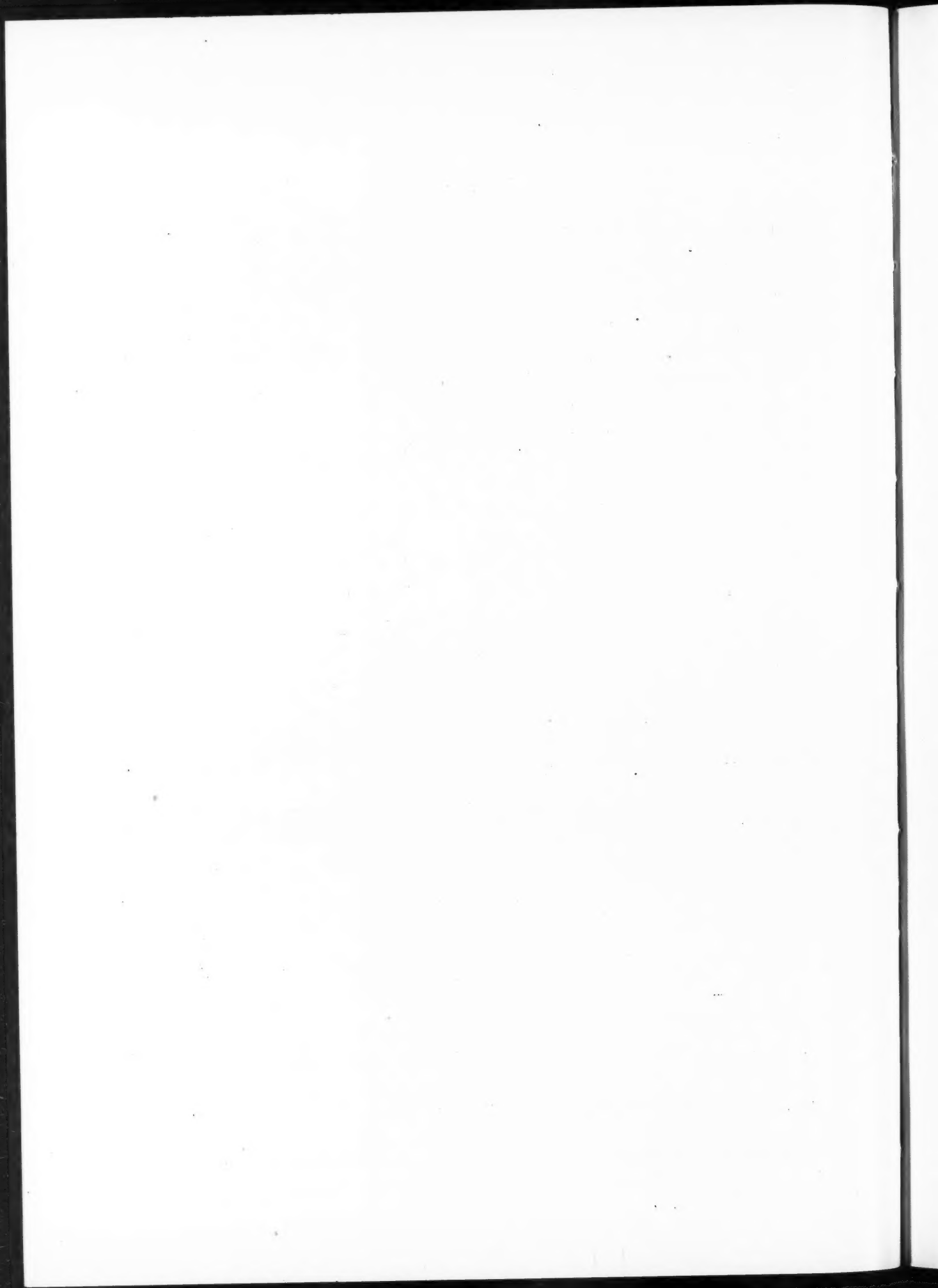
SAN FRANCISCO

Represented by EVE E. CARRERAS, 327 Sansome Street



The
AULT & WIBORG CO.
MANUFACTURERS OF
LITHOGRAPHIC & LETTER PRESS
PRINTING INKS
Cincinnati New York
Chicago St. Louis
Toronto London
Buenos Aires City of Mexico

BUFF, 873-80. RED, 760-05. BLUE, 875-62.
GRAY TINT, 875-63. BLACK, 285-43.



A
die plate
made
hard
enough to
scratch
glass—
is hard.



The Monitor Hard-die Round-hole Perforator

is built extra heavy—with heavy lower die—tempered after it is drilled. Harder than a steel file, with extra hard round needles—perfect register of needles and die-plate—will continue to do good, clean work for years. The Monitor Extra-heavy Perforator is built for power, with plain table, or with patent feed-gauge, or with patent feed-gauge and roll delivery and receiving box. It is made to last and continue to do good, clean work. With feed device that gives speed of a Rotary Perforator.

THE MONITOR PERFORATOR
GUARANTEES ENTIRE SATISFACTION

LATHAM MACHINERY COMPANY

NEW YORK
8 Reade Street.

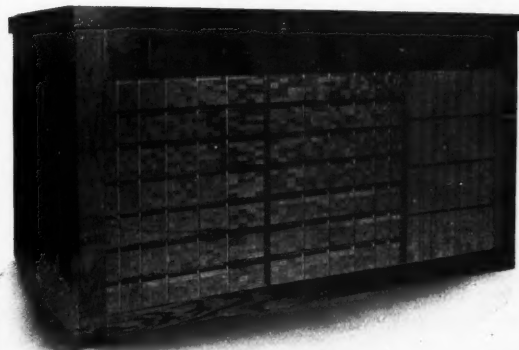
MAIN OFFICE AND FACTORY:
197-201 South Canal Street,
CHICAGO, ILLINOIS, U. S. A.

BOSTON
220 Devonshire St.

1871

35 YEARS

1906



THE JAMES E. GOODRICH CO., Geneva, Ohio, has been making WOOD GOODS FOR PRINTERS for thirty-five years. We know what we are talking about when we say there are no better goods at any price. Every article we make bears a label which guarantees satisfaction. Look for the ORANGE label.

We manufacture a full line of WOOD GOODS, and some of the very finest composing-rooms in the U. S. are equipped with our "Compact" Furniture.

We never have been connected with any trust or combine.

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THE JAMES E. GOODRICH CO.
GENEVA, OHIO, U. S. A.



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FOR \$250 PER TON—approximately—we will supply you with our No. 829 grade of Board. This is designed for high-class index, engraving and stationery requirements.

FOR \$80 PER TON—or about that figure—we can meet the present enormous demand for souvenir-postal stock. It is known as our No. 810 Board, and is also widely used for calendar blanks and the finer grades of boxes.

FOR \$40 PER TON you can get our No. 889 Box Board—a material widely used for cheap boxes and the numerous folding devices now employed to replace wrapping paper. There's nothing better or more serviceable made for the price.

YOU SEE we cover the whole range, from pulp and news boards to the finest grades. That is typical of all of our other lines—something to suit every requirement.

SAMPLES will be gladly sent upon request. What can you use?—price?—quality?—quantity?

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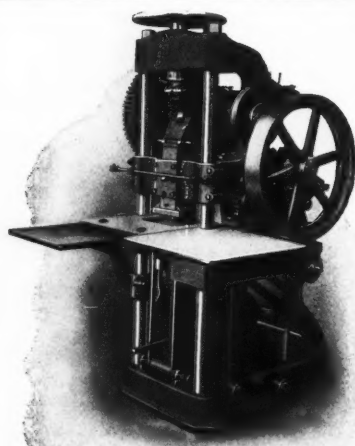
Letterpress Inks
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 And, in fact, any and
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 BUFFALO, NEW YORK

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Gold Medal Award WORLD'S FAIR,
ST. LOUIS, MISSOURI
 The Highest Award and Requires No Explanation

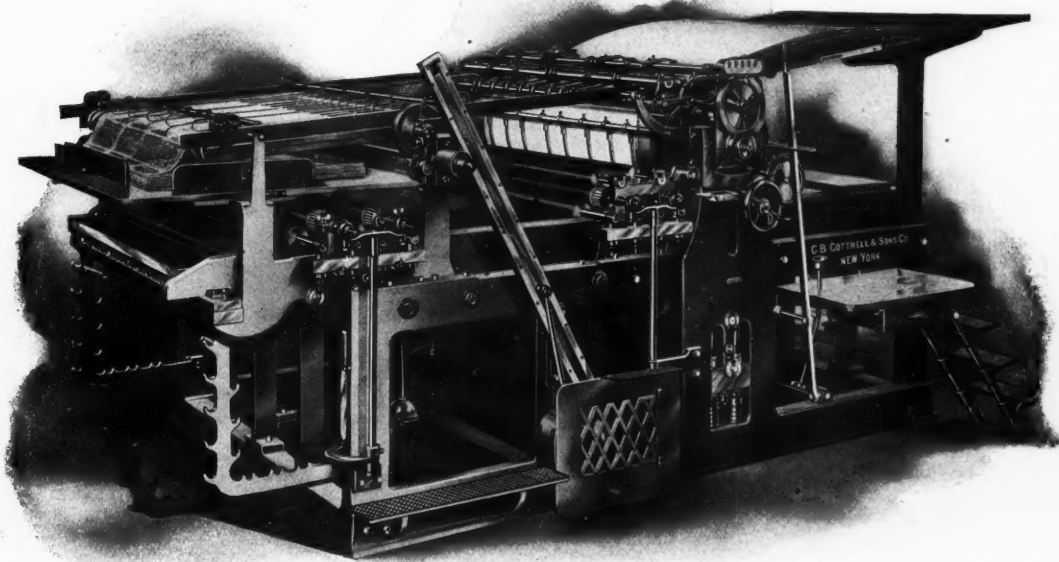
DO not conclude that there is nothing more to be stated in favor of our press because we do not publish the contents of our booklet for you to read through this medium.

It is not what *we can tell you* about the merits of our press which will influence your decision; it is what *others say and do* which helps you to mold your opinion.

Investigate thoroughly, *wherever it may please you*, as to the commercial standing of our press with the trade. Then write us.

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MILLER & RICHARD
 7 Jordan Street
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THE COTTRELL

High Speed Two-Revolution Press

Specially designed for the exacting demands of three-color printing where perfect register is absolutely necessary. New features have been added for facilitating the production of the finest work.

The press is furnished with our patent Convertible Sheet Delivery, which can be set to deliver the sheets printed side up, or it can be changed to the regular fly delivery in five minutes' time. The convertible delivery is operated by a variable-speed crank motion, which dispenses with the fly spring, thus saving the power required to compress the spring, at the same time making the motion more simple and convenient.

C. B. COTTRELL & SONS CO.

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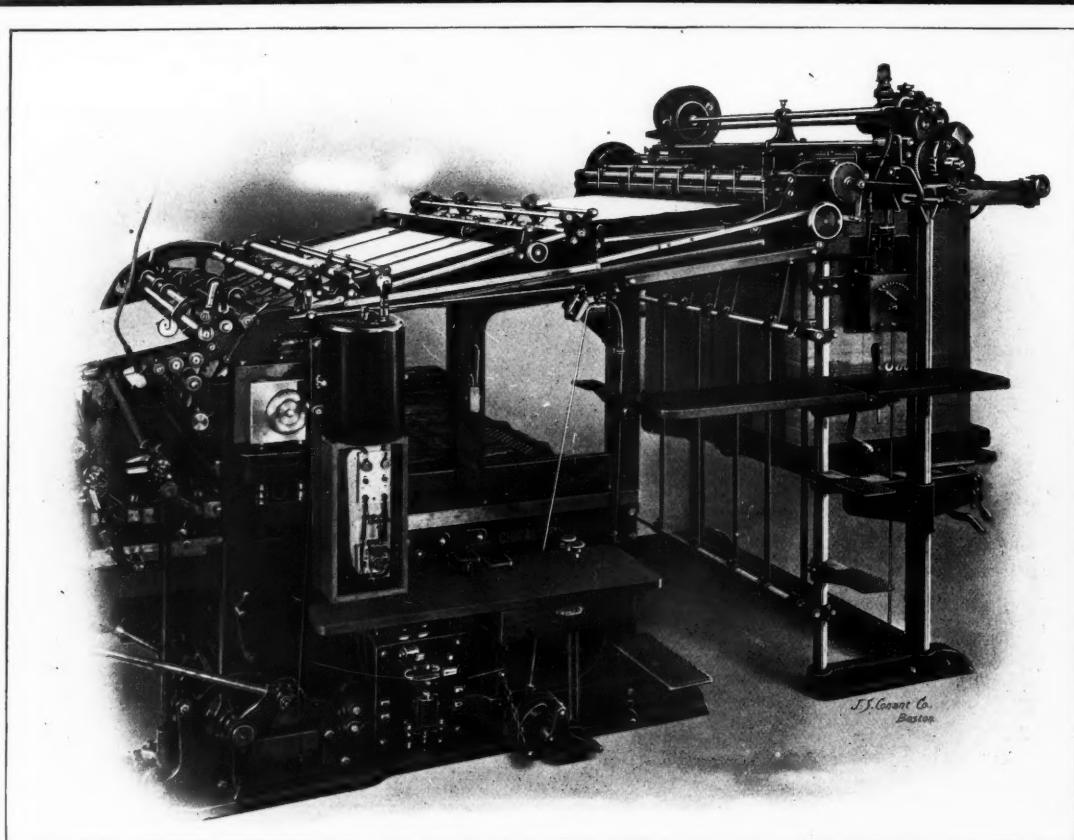
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THE PILE FEEDER shown above represents our latest feeder of this type. We advocate our Continuous Feeder as being better adapted to general pressroom conditions, but the principle of control and separation is identical in both machines, and in those places where the pile style is suited the certainty of separation—positive control of sheet and accurate register—of the Cross Pile Feeder places it in the same class as our Continuous Feeder.

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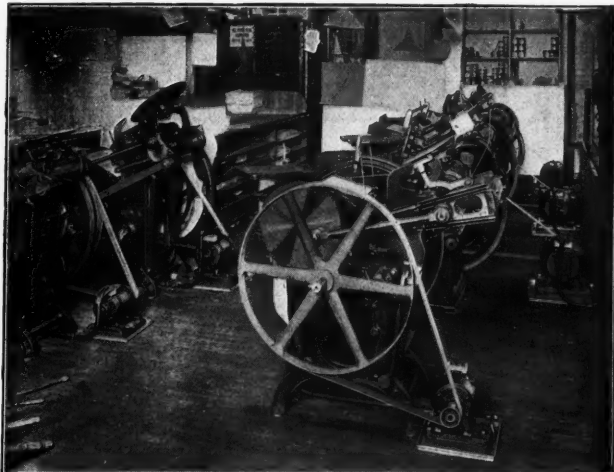
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Don't Kick the Press Get a SPRAGUE Electric Motor

and save your strength. A little printer running a job press by foot power uses up his strength, and so unfits himself for greater opportunities. The little printer with a Sprague Electric Motor to run his press, saves his strength and time, and is better fitted to reach out after larger business. Why not begin now to grow? Better work can be turned out by electric power than by either steam or foot power, whether the plant is large or small. Electric equipments for printing-offices are illustrated in our Bulletin No. 2214, a copy of which will be sent to any interested printer upon request.

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**Use the
Star Brand
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Red Star Label.

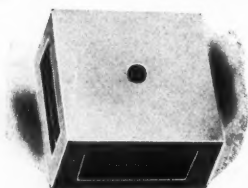
Star Black

The best all-round Book and Cut Ink on the market to-day. Made in three grades—Regular, Long and Q. D., all the same high quality.



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Unit System Bases and Rouse Register Hooks

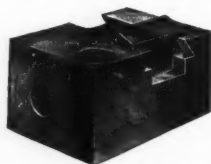


Unit Base, 8 x 8 Ems.

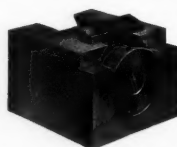
Form the most perfect system yet devised for mounting and registering printing plates. **Unit System Bases** are light, extremely rigid and accurate, and present a smooth, unyielding and unbroken surface to the plate. We are the original Point - System - Base people. While other makers were explaining the merits (?) of haphazard bodies, we were making Hooks and Bases as they should be made — on the point system. We make a variety of Register Hooks suitable for every requirement.

Estimates cheerfully furnished.
Correspondence invited.

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Quetch Register Hook, 6 x 8 Ems.
(Patented)



Rouse Register Hook, 6 x 6 Ems.
(Patented)

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EPISODE IN LIFE OF SAM SLICK HOW HE BECAME A HUSTLING PRINTER

SAM WAS SLICK — an auctioneer, \$30.00 per, honest, and a hustler — little catalog, weekly, the copy on Thursday — Friday for printing — passed around Saturday — his printer reliable, but — did n't do binding — sent it out — close connections — and — frequently — disappointment — employer kicked, and — Sam was Slick — butted in bindery — shown through work-rooms — impressed with a Boston Stitcher — got idea — side issue — investigated — bought a Boston Stitcher for auction room, rear — electric lights furnished power — a girl, \$5 per, folding, stitching — better, too — outside work — binding — lots of it — ahead of game — got a job press — catalog matter lino-typed — trouble again — Sam sized things up — small space — frame — couple series — American Bulfinch and Meriontype — acquaintances — wanted job printing — and binding — Sam was slick — hired couple men — coining money — had only two series of American type, mind you, but — 't was practical American type — and, in the meantime, old printer — business slow — Sam bought him out — increased business — new American material — more help — good-bye, auctioneering — not in it for a minute — Sam making \$30.00 a day now, and — been compelled to order another

BOSTON WIRE STITCHER

American Type Founders Co., Agent

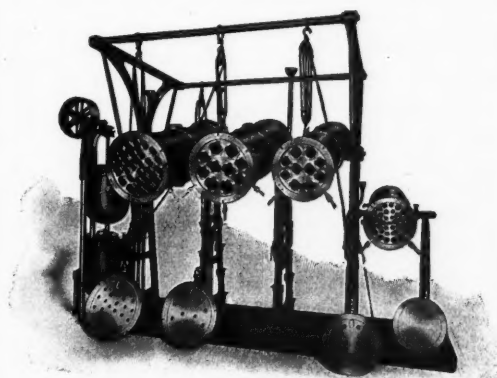
Set in American Line Bulfinch Oldstyle and Bulfinch Border

FULL EQUIPMENTS OF THE LATEST AND
MOST IMPROVED

Roller-Making Machinery

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ESTIMATES FOR LARGE OR SMALL OUTFITS



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Sea Wave, Centurion and Repoussé

Made in three styles, in twenty-four colors, in 21 x 33,
60 and 80 lb. These papers are made only by ourselves
and show very attractive two-color effects, making them
unique for Advertising Announcements, Booklet Covers,
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VELLUM and SATIN TINTS

In fifteen colors, 21 x 33, 60 and 80 lb.

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HALF-TONE WRITING

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Keith Paper Co.

TURNERS FALLS - MASSACHUSETTS

SAVES TIME AND MONEY

The **KEYSTONE**
AUTOMATIC CLAMP
CUTTER DOES THIS—



BECAUSE IT IS

**QUICK, ACCURATE, EASILY
ADJUSTED, DURABLE**

Simple in construction and you can always depend upon
the machine being ready to use. Don't waste time, but
write to-day for descriptive circulars and prices—We
know you will be interested in the quality and price of
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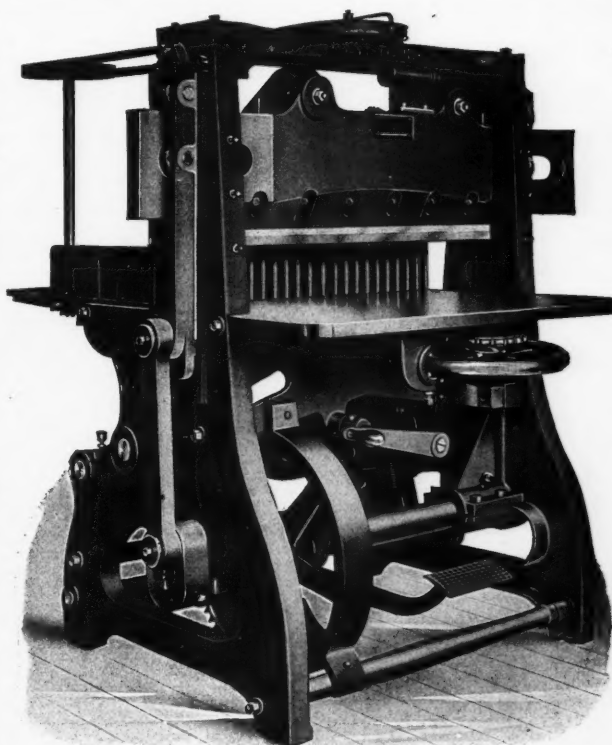
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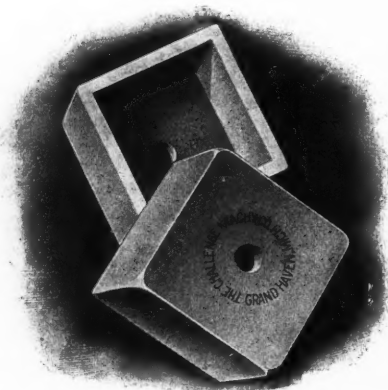


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LEADERS *and* PIONEERS



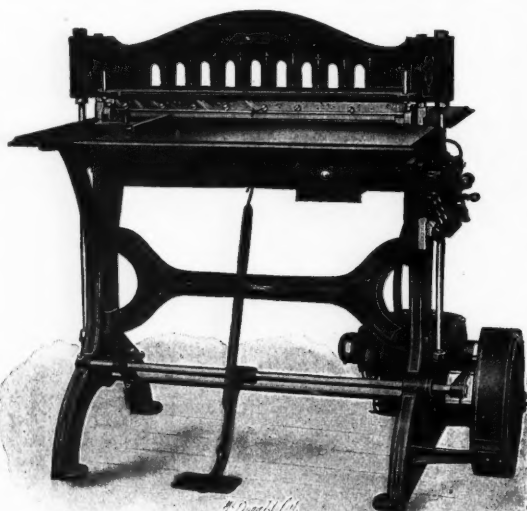
WE ARE THE LEADERS AND PIONEERS in equipments for three-color and fine register work. The **Expansion System of Printers' Blocks**

will save money for the printer and enable him to get out the work better. It saves the entire cost of wood backing for electrotypes plates; it enables the printer to run the plates close together—narrow margins save paper; plates can be removed instantly for making underlays; the underlays will remain on the plates intact and thus can be used over and over again. An accurate hair-line register is assured. It is the practical method for printing all work from plates. Give us particulars of your requirements and we will send you estimates.

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SALESROOM AND
WAREHOUSE:
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THE **TATUM PERFORATOR** WITH DIRECT-CONNECTED MOTOR

A machine heavy enough and with metal properly distributed to perforate perfectly sheets of the largest size.

The construction of our needle-bar marks a great advance; it is so arranged that it can be removed and placed on pins, No. 7, shown in half-tone, ready to sharpen, in from three to five minutes.

Tempered die-plate and needles. Needles of 60 gauge, 15 holes to inch, usually furnished; 65 gauge, 18 to inch, on special order.

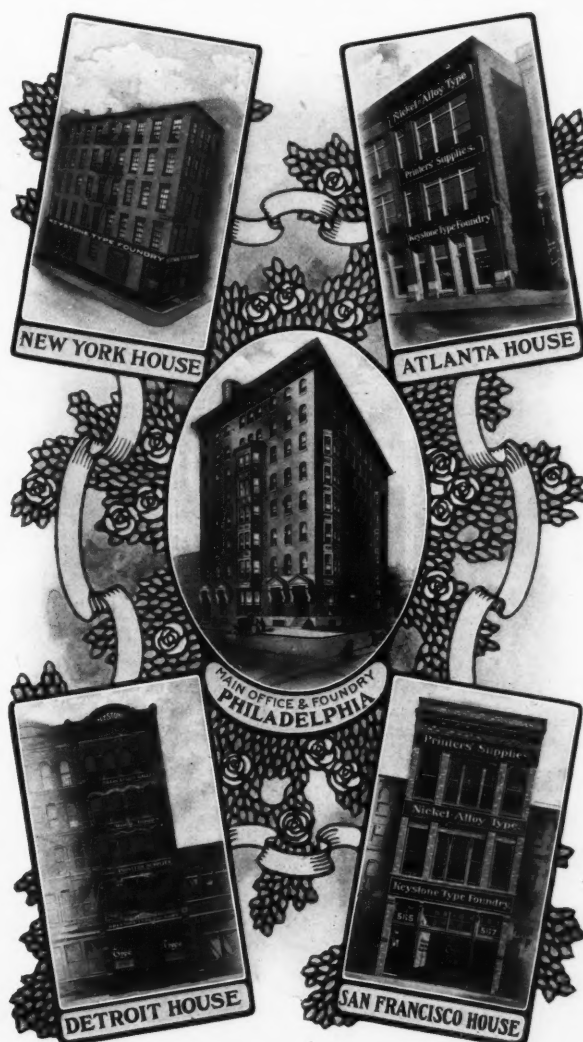
SEND FOR OUR CATALOGUE

THE SAM'L C. TATUM CO.
CINCINNATI, OHIO

Also manufacturers of Paper-punching Machines

HOUSES OF THE KEYSTONE TYPE FOUNDRY

Chicago the Latest Addition



We announce the opening of
OUR CHICAGO HOUSE
on the reverse of this page.

Q Our San Francisco House was destroyed by the recent great conflagration, but we immediately re-established our business in large quarters and with ample facilities at No. 304 Telegraph Avenue, Oakland, Cal., where orders are now being filled.

ANNOUNCEMENT

WE ARE PLEASED to announce to the Printers and Publishers of Chicago and vicinity, that we have leased the premises



529-531 Wabash Ave., Chicago,

(in the fire-proof Ludington Building), and have opened a large Branch House equal in extent and facilities to any in the country. It is our purpose to make this house a point of distribution for our products throughout the middle west. Ample space and the best and most complete facilities for carrying abundant stocks of Keystone Nickel-Alloy, Universal Line Type, Printers' Furniture and Supplies are provided, and special preparations have been made for a

large Sort or "Dividing" room for supplying type sorts without delay, and a large Brass Rule manufacturing plant for furnishing regular or special faces of Brass Rules in strips or cut-to-order, also Leads and Slugs cut-to-order.

Salesmen representing the Chicago House will visit the trade in Illinois, Wisconsin, Minnesota, Iowa, Missouri, Indiana, Michigan and adjoining states, and the needs of City customers will be looked after by local representatives.

Mr. George R. Smith (formerly of the firm Champlin & Smith), who for many years has been closely in touch with printers and publishers in Chicago and vicinity, will be in charge as Manager of this house. Those who have dealt with him heretofore need no assurance that he will maintain the high grade service given by this Foundry at its main house in Philadelphia and at its branch houses in New York, Detroit, Atlanta and San Francisco.

Our Chicago location is well within the new printing district and already surrounded by some of the largest printers, publishers and engravers of the City. The display of Keystone Type and Material, Printers' Furniture and Supplies, is the most attractive and interesting to prospective buyers that can be seen anywhere. It is therefore a pleasure to invite all interested in such goods, to visit our new premises.

We aim to make it apparent to all buyers of Type and Printing Material that our policy in conducting an independent type founding institution in this country, is in the best interests of the printers and publishers, to whom we are looking for support.

Every device which can contribute to good service and satisfactory dealing, will be employed to the end that our customers may receive:

The best, so far as quality is concerned;

The most durable and accurate, so far as mechanical skill is concerned;

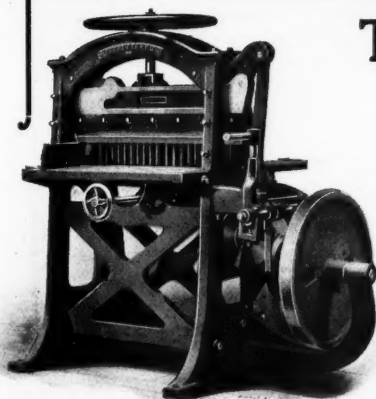
The most up-to-date, so far as style and novelty are concerned;

The most prompt and satisfactory, so far as service is concerned.

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A MACHINE OF DISTINCT STYLE AND RIGID CONSTRUCTION

Parts of the best steel and cast iron, carefully machined and accurately assembled. A thoroughly reliable wheel clamp, extra large, giving maximum power with minimum exertion. Front and back side gauges on left-hand side; adjustable front side gauge; back gauge intersecting with clamp, permitting cut as narrow as $\frac{1}{8}$ inch. Back gauge is split; without moving it can be adjusted so work can be trimmed on two sides without moving the gauge. Full-length enameled measuring rule is mortised in the table. The latter, in front of knife, is marked into $\frac{1}{2}$ -inch squares; back of knife it is marked into $\frac{1}{4}$ inches parallel to side gauge. Operating mechanism consists of worm and worm-wheel instead of numerous troublesome gears and pinions. The worm—of small diameter—is on the driving shaft; both turned from the solid steel, and the worm-wheel cut by special machinery. The combination gives ample power without noise, friction and jar. Peerless friction clutch, with regulating and releasing adjustments, in satisfactory use fifteen years. Automatic trip and brake. Twenty cuts per minute. Cuts 32 inches square. A high-grade cutter at an attractive price. Over 8,000 Peerless Machines in constant use. Send for Booklet.

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Builders of the PEERLESS JOB PRESS.

U. S. A.

FOR SALE BY ALL DEALERS.

Lieber's and A-B-C 5th Ed. Codes.



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STEEL DIE EMBOSSING
AND
COPPER PLATE ENGRAVING
& **PRINTING TO THE TRADE.**
WM FREUND & SONS.
174-176 STATE ST.
CHICAGO.
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Wedding
Invitations

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Calling
Cards

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SAMPLES
READY

GUESS THE REASON

You appear to have been right in the choice of a name for your inks. Using them is just as fortunate as carrying a rabbit's foot. Our foreman says: "Doggone it is funny, Jonson's colored inks beat 'em all, and they don't cost but about half as much."

TIMES, PORTSMOUTH, OHIO.

It may seem strange to many printers that Mr. Harold, of the above paper, should prefer to send to me cash in advance with his orders, six hundred and sixty miles away, while he is located only eighty miles from one of the largest ink plants in the country, and from whom he could buy all the inks he wants on credit. He never fails to say a kind word for my inks when sending an order, and never lacks an opportunity to recommend them to others. He certainly must have some reason for favoring me, and I feel positive that, if asked, he would admit that he saves nearly fifty per cent on his ink bills, and gets inks that please both him and his foreman. Send for a copy of my new sample book. Money back to dissatisfied purchasers.

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PRINTERS INK JONSON

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A Good Top Sheet

is an absolute necessity for the attainment of good printing. As much as a good pressman.

Why, then, neglect this important subject, the cheapest factor in your pressroom?

Is it that you never considered it, or thought the age of perfection had long been arrived at?

Well, then, become acquainted with the top sheet best adapted for cut work, that is exceptionally strong, unaffected by moisture, hard, uniform, and gives a sharp, clean impression. Save your type.

Full particulars and sample on application

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THE ROBERT DICK MAILER

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Unrivalled for simplicity, durability and speed. With it experts have addressed from 6,000 to 8,586 papers in less than an hour. Latest record, 200 papers in less than a minute. No office complete without it.

Price, \$20.25—without royalty.

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Cover and Book Papers



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THE ROTH EMBOSSED PRINTING PRESS

DIPLOMA AND MEDAL AWARDED, ST. LOUIS WORLD'S FAIR

The only press sold on trial and guaranteed in every respect, including that it can be successfully operated by a (young) person of ordinary intelligence.

The most durable, efficient and reliable press.

Our improved chuck takes a $5\frac{1}{2}$ -inch x $8\frac{1}{2}$ -inch die (or 2 or 3 dies), permitting a greater variety of work to be done, including 2 and 3 colors, in one impression.

The opening to feed the sheets is 30 inches.

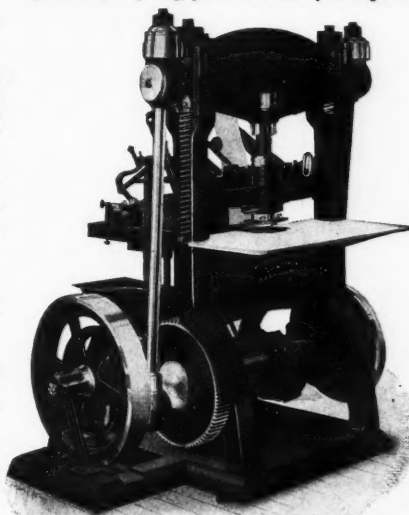
The efficiency and delicacy of its wipe is such that 43 and 50-lb. wiping paper is used.

We guarantee a greater number of impressions can be run from a non-case-hardened die than on any other make of press.

Our superb inking device is such that the distribution of ink is perfect, in consequence of which the minimum amount of ink is used.

The only press with a universal, self-centering (on any size roll) paper roll shaft.

Is a triumph of simplicity.



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ESTABLISHED 1857
Also Sole Manufacturers of ROTH'S DIE-HARDENING OUTFIT (Patent Pending)

Send for list of guarantees, illustrated, descriptive pamphlet with prices and terms and copies of letters from purchasers; also sample impressions run commercially. Correspondence Solicited.

Contains less than half as many parts as other presses of its kind, yet has every possible attachment for its convenient and successful operation.

Is constructed with a view to longevity, convenience and easiness of operation.

All adjustments can be made while press is running.

Its operation is entirely automatic.

Its output is produced at the lowest possible shop cost.

The only press that retains its accurate and positive registry for an indefinite period of years.

Our price includes us furnishing an instructor to teach some one how to operate our press, also every detail known to the art of embossed printing.

Our press is being successfully operated by 30 different concerns in the United States and Mexico, including one sold Tiffany & Co.

B. ROTH TOOL COMPANY

Sole Owners and Manufacturers
ST. LOUIS, MO., U. S. A.

ACME WIRE STAPLE BINDERS

Acme
Binder
No. 6

Patented in Europe
and the
United States.

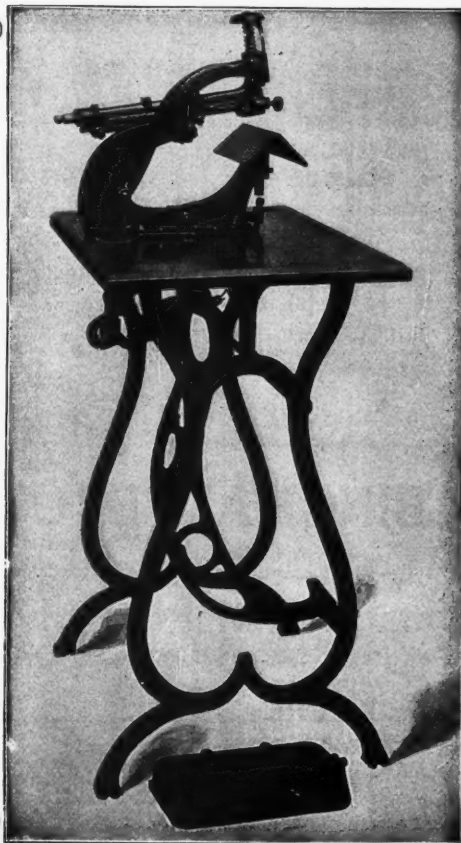
"The Best Automatic Wire-Stapling
Devices on the market"

Operated by hand or foot power.

Equipped with Automatic Clinching and Anti-clogging
Devices.

Full information promptly furnished on application.

ACME STAPLE CO. Ltd.
500 N. 12th St., PHILADELPHIA



ON PAGES 268-9



May number "Inland Printer" is published some more of the "Roller Care Advice" that is at present an epidemic—and, as has been usual in all other cases, is dangerous to follow.

Circumstances, temperature and atmosphere must all be favorable to get results, according to this latest contributor—when were they all acting in combination?

Printers have enough to combat without looking for more trouble—article says:

"If the weather is dry and you maintain a temperature of 75 degrees three feet from the floor, your rollers will season in a couple of days."

Diogenes hunted for an honest man, with a lantern, so it is said. Think of a printer hustling around a pressroom with a yardstick and a thermometer, hunting for 75 degrees, on a *wet* day.

Further on you are given a lot of instructions that are wearisome and unnecessary, unless you are inflicted with a poor lot of Rollers.

I don't know where the writer of that article gets his Rollers, but any that need all the babying he hands out should be returned to their maker, p. d. q. Almost at

the end of the article appears that old fallacy of the glycerine coming out of Rollers—that never happened. The advice to rub glycerine *into* the Roller is pure rot, for you can't do it, neither will a Roller absorb glycerine. Wouldn't all such "tommy rot" make you tired? Why do journals publish such ridiculous articles?

Read the latest contribution, and when you have finished you will find that the only practical advice it contains could be confined to these few words:

Wash your Rollers with oil. Renew your Rollers at least twice a year.

Thirteen words; and it takes four columns to tell that much.

No old Rollers can be benefited by massage, hydropathy, osteopathy or Christian Science. Just give them "absent treatment" by sending them away to a Roller maker.

Herbert M. Bingham

BINGHAM BROTHERS CO.

FOUNDED 1849

ROLLER MAKERS

NEW YORK - - - - - 406-408 Pearl Street

PHILADELPHIA - - - - - 413 Commerce Street

Allied with BINGHAM & RUNGE, Cleveland



Bausch & Lomb Photo Engraver's Lenses and Prisms

- ☞ Photo Engravers will appreciate the value of accurate prisms for half-tone and line work. Many troubles hard to trace come from inaccurate prisms.
- ☞ BAUSCH & LOMB Prisms absorb the least possible amount of light. The angles are true.
- ☞ The surfaces are accurately ground and polished.
- ☞ The mountings secure accurate adjustment to the lens.

Bausch & Lomb Optical Co.
ROCHESTER, N. Y.

New York Boston Washington Chicago San Francisco

Finest Line of Rebuilt Cylinder Presses in the Land

Every one guaranteed to do the work now as well as when put out new in the hands of competent people.

Every Press here advertised can be seen in my place

807—2-revolution Century, 43x56, 4 rollers, front delivery,	\$2000.00
825—Potter Drum, 27x35, 4 rollers, tapeless delivery, .	750.00
843—2-revolution Campbell, 37x53, 4 rollers, front delivery,	1000.00
845—2-revolution Cottrell, 43x56, 4 rollers, front delivery,	1750.00
856—2-revolution Campbell, 48x64, 4 rollers, front delivery,	1200.00
859—Campbell Oscillator, 28x32, 4 rollers, front delivery,	650.00
866—2-revolution Campbell, 26x36, 2 rollers, rear delivery,	800.00
869—2-revolution Cottrell, 43x60, 4 rollers, rear delivery,	1000.00
872—Hoe Drum, 33x47, 2 rollers, tapeless, 6 qto., . .	800.00
873—Cottrell Stop, 33x48, 4 rollers, front delivery, . .	1000.00
878—Cincinnati Drum, 28x40, 2 rollers, 5 qto., . . .	400.00
879—2-revolution Miehle, 39x53, 4 rollers, front delivery,	2200.00
880—Babcock Drum, 22x26, 2 rollers, tapeless delivery,	600.00
Drums coming in: 28x41 Hoe, 28x42 Cottrell.	
Two-revolutions coming in: 26x32 Optimus, 23x28 Campbell.	
41x56 2-revolution Campbell, 4 rollers, front delivery, \$1100.00	

Stock constantly changing. : Splendid bargains always on hand
Come, see for yourself. My bulletin gives full descriptions
Reference given on every press I have sold

BRONSON'S PRINTERS MACHINERY

H. Bronson, Proprietor

54 N. Clinton Street, Chicago, Illinois

Telephone, Main 224

Four doors north of W. Lake St.

The Carlton Rotary Perforating Machine

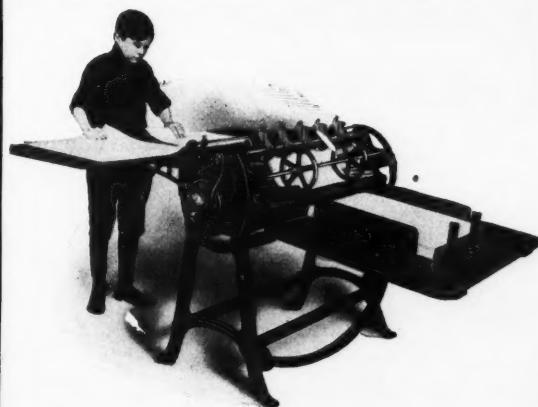
Does everything any other Perforator will do, and does it Quicker and Better.

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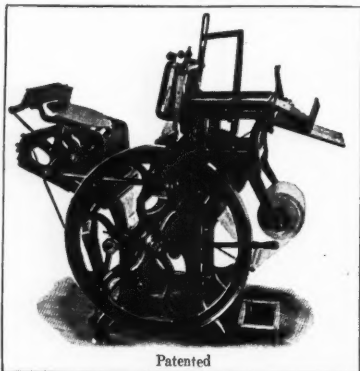
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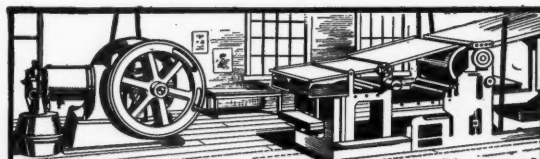
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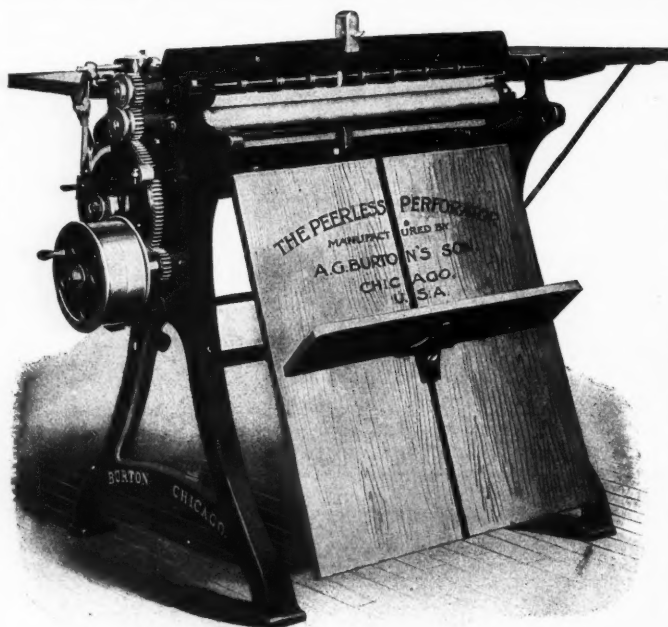
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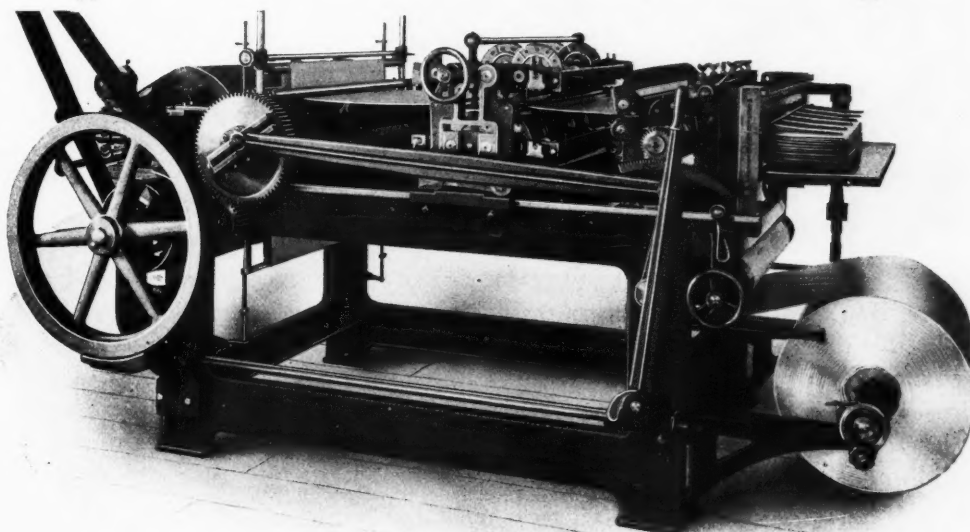
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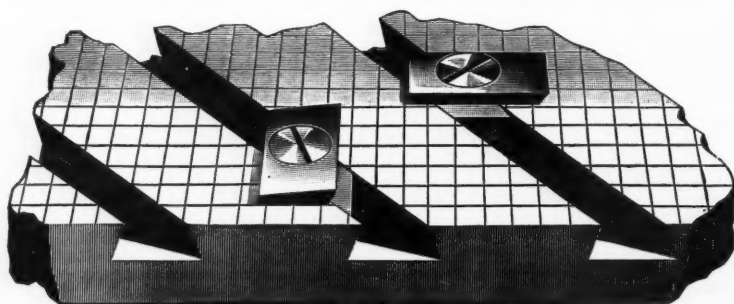
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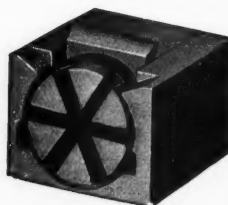
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The Pikey

Printer

Tramping printer came to town,
(Said his name was Ikey),
Put him on an eight-point case,
Asked if we had "Pikey?"

"Up in Burnville where I worked
(Speaking now is Ikey),
"Set ten columns ev'ry day
All in good old Pikey"

"Pikey is the type I set
(Quoth this tramping Ikey)
"Locals, ads. and gen'ral news,
All went up in Pikey."

"When I die, as die I must
(Mournfully speaks Ikey)
"Set my obit..up in type
That justifies with Pikey."

"When you put my tombstone up
(Hopefully talks Ikey)
"Grave on it in letters deep—
Grave in twelve-line Pikey:"

"Neath this sod a tramp 'print lies'
(Epitaph for Ikey),
"Wasent much on eight-point type:
"But simply hell on Pikey!"

— G.W.S. —

HERBERT WILSON



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UNISON.

BY FRED W. GAGE.*



O, gentle reader, this is not to be a dissertation on "unionism," nor yet a panegyric on the benefits of "getting together," albeit this latter course is one that might, with benefit, be adopted by the disputants in our craft who still remain so at odds with one another.

Rather is it simply the retelling of an old story which has to do mainly with one of the troubles encountered in the modern pressroom, and a few suggestions in regard thereto which it is hoped may be of benefit.

In the old days of Adams presses it was a certainty that the impressional surfaces must come together with exactness, but even then there was more or less difficulty with "slurring," usually from a "baggy" sheet, and worse when running a form with more or less open spaces.

Nowadays, in spite of all the skill of the modern pressbuilder, it is still one of the trials of the pressman that "slurring," "guttering," or "dragging" are so often manifest. And perhaps no other one thing is so surely disastrous to good results, particularly in long runs. Even some of our best trade publications are not free from this radical blemish, which shows not only in the finished product, but leaves its balefully destructive mark on the mutely eloquent form of type or cuts. And it is in the hope of aiding the oftentimes perplexed pressman that these lines are written.

In common with other branches of our cherished art, cylinder presswork has in the past

decade or two been almost revolutionized. The introduction of the half-tone and its accompanying necessity, enameled paper, has made of the pressman an artist, and it is his deft touch that can make or mar the best efforts of engraver and printer. He has found that the sensitive surfaces given him to work on and with are susceptible to even the one-thousandth of an inch variation in pressure.

In view of these facts it seems sometimes that there is, in the average pressroom, too little attention given to this important matter of unison in the travel of printing surfaces.

The pressbuilder knows full well the importance of this point, and it has demanded and received the skill and ingenuity of more than one inventor. As a result it may safely be said that in the majority of instances the trouble is with the pressman rather than the press, when the printed sheet shows the effects of a "scouring" impression.

To be sure, we must always recognize that even the most painstaking pressbuilder is to a degree handicapped by the nature of the materials of which he builds, so that the "absolutely unyielding impression" of which we were told in our younger days has met with the disillusionment that has befallen other nursery tales. But with the perfecting of modern machine-shop tools and methods has come the production of presses of great power and rigidity, with various improvements and additions, particularly as to bed motions, and all having in view this one great object—the unison of the printing surfaces.

Indeed, one prominent machine trusts not to the well-nigh universal "rack and segment" to

* President, Gage Printing Company, Battle Creek, Michigan.

bring and keep bed and cylinder together during the printing stroke, but rejoices in a continuous rack and corresponding gear, the whole length of the printing surface. In some respects this is undoubtedly an improvement, although it can be readily seen that with an overpacked cylinder this style of construction can make a formidable grinding machine of such a press, with results proportionately more serious than on a similarly overpacked press of the other type of construction.

For unquestionably the chief cause of "ground off" and blackened edges is the overpacking of cylinders, which so increases their diameter as to give a surface traveling materially faster than the bed. Manifestations of this same evil are found also in the type being driven "off its feet," Lino-type slugs tipped over, tympan dragged or broken away from its clamps, etc.

Oftentimes a whole day's careful "make-ready" is ruined, or perchance the first few thousand impressions are hardly off before blackened edges on half-tone or type give warning that something is wrong. If the work in hand is of a high grade, this may mean the lifting of a form, or the hurried making and substitution of fresh plates on the worst worn edges, while who of us has not observed the sickening result of an attempt to soften the impression on an edge already beginning to blacken and showing undue wear.

The modern rotary machines, from the complicated color presses down to the smallest Harris, as their operators quickly learn, will fiercely resent change in the circumference of their printing cylinders, by even the thickness of one sheet of paper. But it seems difficult for the ordinary pressman, working on the latest and most improved two-revolution machine, to realize that there is the same necessity for keeping the impression surfaces traveling exactly together, even though but one of these surfaces be curved. Now let us examine into the mechanics of the case.

Every pressman of any experience has found that the ordinary type form is a "snap" to print as compared with a form of half-tones, and this is largely due to the greater printing pressure necessary to print the half-tone. And right here is where so many go wrong by assuming that when they have made the form fully type high, the necessary "squeeze" must be secured by adding sheet after sheet to the cylinder packing.

Probably the press erector is in some degree responsible for this error, for it has been the experience of more than one pressman that the erector did not set the cylinder down as hard as half-tone printing makes necessary. A new machine is usually tested as to levelness of impression by a type form, but when its powers are

tried by the enormously increased impression demands of a half-tone form, that pressman is wisest who quickest appreciates that a resetting of the cylinder may first be necessary.

For try as they may, the pressbuilders can not give us "unyielding" impression powers, and the better way to meet the situation is to recognize the natural limitations of iron and steel and solve the resulting problems intelligently.

"But," says the young pressman, "how can I know when I have the cylinder of my press rightly packed?" It is a simple matter to determine and has often been explained to enquirers. Take an accurate straight-edge of sufficient length to reach from outside to outside of the bearers on your cylinder, and after your form is made ready lay the straight-edge along the printing surface and see if the tympan raises the straight-edge above the bearers on either side. If it does, the cylinder is overpacked and trouble is in sight.

That "once well done is twice done" is particularly applicable to the various details of make-ready, no experienced pressman will deny for a moment, and while the bringing of the form to "type high" is certainly one of the fundamentals, the correct packing and setting of the cylinder are of equal importance.

To be sure there are in comparatively rare instances other causes for scoured edges, but as a rule if the bearers be kept type high and level (watch for hollow spots from previous wear) and the register rack and segment correctly adjusted, even on an old machine with well worn gears, clean, sharp printing with no grinding of the form may be a certainty, provided the cylinder be properly set so as to be neither under nor over packed.

The writer remembers one apparently inexplicable instance of "guttering" where after some days of wasted experimenting it was discovered that the "set" of the register rack was such as to pull the bed ahead of its driving gear at the beginning of the printing stroke, the "catching up" process taking place at the first open margin. Again all the trouble was due to an unsuspected loose key in the cylinder driving gear (this kept all the experts guessing for weeks), while the slight "give" of the loosely locked form has been detected as the seat of another's trouble.

A frequently unsuspected reason for blackened edges is warped blocking under plates, or worse, heavy underlays put under the centers of blocks, either condition causing the plate to rock more or less, absolutely preventing clear printing. Underlays should as far as possible be put between the plate and its supporting block.

But before looking for obscure causes of trouble, be sure as to the "set" and packing of your cylinder.

Written for THE INLAND PRINTER.

MODERN BOOKBINDING.

BY A. HUGHMARK.

NO. XV.—JOB BINDING (CONTINUED).

BANDING of book backs is not now a necessity as it was when books had to be sewn on extending cords; these then being real bands under a tight back. To-day the false bands glued onto a loose back are merely for decorative purposes. The plainness of the otherwise flat looking back is thereby broken up into divisions or panels enabling the finisher to present creditable work with little orna-

and some small tools to advantage in constructing a pleasing design. Soft twine of four, five and six cord thickness, according to the size of the book, is preferable to either leather strips or strawboards for banding material. When well pasted and rolled and then laid across the back, it will stick sufficiently to stay in place while forwarding and still be movable with bandstick or nippers after the leather has been stretched over. While banding, the forwarder may think that he has put the bands on straight and yet when he has the back in leather he may discover that he was mistaken. The leather back should be cut wide enough to extend over on the covers on each side



THE SIMPLE LIFE.

Plate by The Inland-Walton Engraving Company.

However, if one designs to construct a dwelling-house . . . consider first how slight a shelter is absolutely necessary.—Thoreau.

mentation, outside of lettering in the title and volume number, if any. Bands can be put on in many ways by dividing off the back with the dividers into five, six or seven panels; seven is, however, used only on large books. The divisions are made from head to tail, leaving the latter somewhat larger than the others. For odd books, a band put very close to each end of the back and a third placed far enough below the first one to form a lettering panel for the title (Fig. 1) will leave a large portion of the back unobstructed for the finisher, in which he can use a small fillet roll

one-third of their width. The corners appearing triangular after being turned in should have equal length of sides compared to the width of the leather that is shown on the boards from the joint. The back should be well pared down on the sides and ends, but neither the ends of the back nor the short side of the leather corner should be pared so thin as to impair the strength of the turns. A machine (Fig. 2) does better paring than can be done by hand; it does not work well on very soft leathers.

After the leather has been pared, it is sponged

on both sides before pasting. The paste should be thick, but no more should be applied than is necessary. The back is drawn over, but many make the mistake of *stretching* it so tight across the back that the strength is greatly reduced in the joints. As the leather dries it shrinks, and this makes the matter still worse. When turning in the ends, the

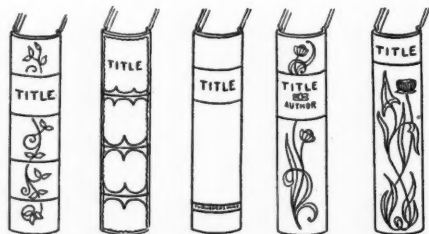


FIG. 1.

forwarder grasps the end of the book with the three last fingers of the left hand, letting both covers drop down flat on the bench, and with the left thumb and index finger he pushes the end of the loose back away from the book at the extreme end only. This makes an opening so that the



FIG. 2.

leather can be turned in smooth and in a straight line. It is then pulled out a trifle so a head can be set equal to the thickness of the board in the cover. When both ends have been treated in this manner, the book is laid on one side and the cover opened horizontally and then each end of this cover is drawn up from the book a little and the turn

drawn smooth. This should be done to prevent the ends of the joints from being so tight as to strain after the leather is dry. The next operation is to rub up the bands; this can be done with the edge of a folder, with a grooved bandstick or with a pair of band nippers. A No. 16 three-cord thread is then tied around the joints so as to force the leather in to a small V shape at the end of each joint. The book is then set on end closed on the paring stone, and with the folder the operator works around the back until it is smooth, showing no lumps where the leather is doubled, leaving clean edges and sharp, flat heads. A book that has a hump on each end of its back and with heads curved in undulated lines from cover to cover, or

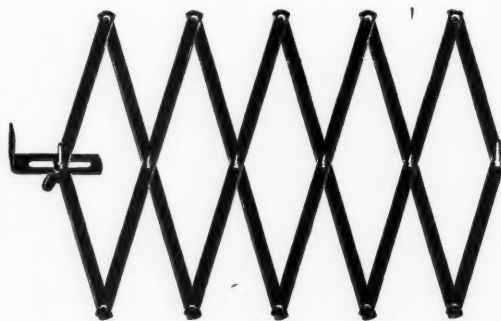


FIG. 3.

bending toward the edge with a rounding, can never be a pleasing sight on the shelf. It is just as distasteful to find straining or bulging joints when opening a book as it is to read a side-stitched magazine. Therefore the covers should be opened up before the leather is thoroughly dry and laid open horizontally as before. A folder should then be pressed, flat side down, against the cover over the joint between the turns only. While this is done the cover should be forced toward the book with the left hand. If this does not leave a straight and free joint, then most of the leather turn that would be covered up with the paste-up leaf should be cut away. After this, time should be given to dry completely before siding up or pasting up. The corners can be put on any time before or after the back. It should be remembered that driers must always be inserted between the book and its covers while the leather is damp. Pieces or strips of thin boards should be laid under the string when tying up the joints, as otherwise marks would be impressed in the leather from the thread. All sides should be put on with glue. The overlapping of the sides should have the corners cut in straight from the edge of the boards, instead of slanting, as is oftener the case. The pasting up concludes the forwarding of the book, although many consider this part of the finishing. If the book has a cloth or leather joint,

this is pasted up and allowed time to dry before the lining is pasted on. In each instance (special joint or plain endpaper), the process is the same. The cover is thrown back, the joint cleaned out, the cover pressed down once more and the waste leaf torn away. After the joint or end-paper has been pasted, it is lifted up onto the cover and then rubbed into the joint of the back. The fingers must be the tools for this work. Where there is

on the books. One hand on the spider without the bar or pin will be enough. The full leather book is handled in a similar manner. When stamped backs are used, these should be dampened around the edges only, or all around the paper lining that is attached to these backs.

Light colored calf or sheep books should be left to dry between clean white paper, soft print paper preferred.



NEAR HOT SPRINGS, ARKANSAS.

Plate by The Inland-Walton Engraving Company.

In the skies the sapphire blue
Now hath won its richest hue;
In the woods the breath of song
Night and day
Floats with leafy scent along—
Come away! — *Hemans.*

more than one book, they are opened up in rows along the bench and all pasted, after which the first one that was pasted will be just right for lining up. This one side is left open to dry before the other side is pasted up. When closing—this should be done before quite dry—a strawboard drier should be inserted. The same procedure should be repeated for the second side. After the driers have been put in on both sides, the book or books can be laid between pulp boards and then laid into the standing press with an additional pressing board between each. The press should be turned down so as to bring but little pressure

Law binding differs from job binding only in a few particulars which will be here pointed out. The boards are laced in on two cords only. Where the books are thick a piece of super is laid over the back between the lacing cord and the laps pushed in between joint and cover-board with the end of a folder. These laps are later pasted upon the boards with the end-sheet, thus reinforcing the paper joint. The loose back is of heavier paper and is just laid on and folded over once. The books in this case all being the same length, the papers are cut into proper lengths, requiring no cutting off at the ends after backs are in place.

The boards are lined up in sheets before the cutting. When stabbing, a marked wooden board is used, showing always the position where the holes are wanted. Several boards are stabbed at once. Pattern tin strips, the length of the backs, into which four tacks have been soldered into position where the bands are to be, are used to mark off with. These patterns have an angular bend at one end to insure uniformity in puncturing. An instrument known as the Hubograph (Fig. 3) is



Book with five bands and colored inlays on side and backbone.

useful for this kind of work. It can be set with a long or short head and can be changed to take any size by means of the two end-screws.

All the leather for a day's task of law books is wet by dipping each cover, after which it is put into a stack and all of it pasted off at one time. There may be from forty to sixty pieces, according to what stage the books are taken from. They are all drawn over before turning in. The corners are clipped off in an inverted V shape by bending the end and front laps together while cutting. When all are turned in, the heads are set by simply pushing the end of the book over the paring stone. For this work a bandstick is necessary. The bands are rubbed up on all the books at one time. The driers used must be pulp boards and cut to the same size as the book so as not to project while handling. It is necessary to insert these as soon as the leather has been turned in on each book. Cleanliness is required during the forwarding,

both on the bench and in person. The edges, which are left white, must be unspotted and the leather should be free from paste on the outside. The books have to be washed, but this wash, which is a solution of oxalic acid, should be weak and very little of it used at that, as it injures the leather. If the covers are full of paste daubs and dirt spots, it not only takes more time, but also more acid, which always has a deleterious effect on the leather. The pasting-up is done in long rows, after which the books are closed up and the second side laid up for pasting in similar manner. Driers are not used at this stage of the work. After the books have been pasted up, washed and burnt-rolled on the backs, and have the titles pasted on, they are put in press between planished zinc boards, joint outside, and pressed hard, the longer the better. They are then taken out and the sides impressed with a hot fillet frame in the stamping machine. They are then ready for inspection, to be wrapped, sealed and labeled.

Now a few words in regard to the selection of leather will be useful to those who have not had the opportunity to make personal observations. For durability, what is known as Niger morocco is the best; the coloring, too, is more permanent than in others. The Levant morocco is next best, Turkey, French and German moroccoes the most commonly used, but less desirable. Any of these last named leathers in dark green and chocolate brown will fade on the backs, leaving the sides of the original shade, if the books are standing in bookcases. The same trouble occurs with the seal and other grained cowhides or skivers. Tans, blues, reds and black seem to be the only colors that can stand the effects of light without fading. Textile bindings of these colors suffer in like manner. Aniline colored edges fade quickly where exposed to the sun, but if polished they keep very well.

(To be continued.)

THE EDITOR'S APPEAL.

"We regret to see," wrote the editor of the *You Bet Warbler*, "that while our readers believe us competent to settle the Chinese question, persuade Eastern capital to invest in Flapjack Gulch, give a sure cure for hollow-horn and tell Widow Jenkins's red-headed girl whether she is in love with Bud Jackson or that biled-shirted dude from the Forks—we regret to see that after all this our subscribers haven't enough confidence in our financial ability to occasionally entrust a few dollars to us. But if they don't overcome the said lack of confidence enough to let a few pesos roll our way, and that pretty pronto, our soul will have to take to roosting on Signal Butte for lack of a body to wear."—N. M. Suydam, Martinez, Ariz.

ACCORDING to Jack London, journalism is something printed in a newspaper and literature is something printed in a book. The error is quite common.—Puck.



Plate by The Inland-Walton Engraving Company.

GOING TO THE PASTURE.

Copyright, 1906, by Nace Brock, Asheville, North Carolina.

Written for THE INLAND PRINTER.

GOOD AND BAD EXPRESSION.

BY F. HORACE TEALL.



R. CHARLES A. DANA said, in one of his trenchant little paragraphs of verbal criticism in the *New York Sun*, "It is wonderful how much trouble writers will sometimes take to demonstrate their own ignorance and incompetence." This was and is true. It is more wonderful, though, how little trouble writers will sometimes take to demonstrate their own knowledge and competence.

Here is an unmistakable instance of the lack of taking trouble: Professors Greenough and Kittredge are the joint authors of a book about words upon which the press critics have bestowed only praise. Moreover, they are unquestionably worthy. Yet in their book, "Words and their Ways," on page 361, they say that "Our language has a great *quantity* of words and phrases in which the names of animals are figuratively used to describe human qualities." They have here used the word *quantity* erroneously. What they mean is a *number* of words and phrases, and "a large number" is better than "a great number," but "many words," etc., is preferable to any of the other locutions.

In order to secure reasonable discrimination in the use of words (of which the strict delimitation of quantity and number is a good example), a basis of distinction between various ways in which different word-uses become truly conventional must be established. In accepting as right any locution that is truly conventional we directly controvert the main point of the thoroughgoing purist. His dogma commonly prescribes, as the only possible justification for any vocable, in any connection, absolute conformity to some rule or rules, and often applies an insufficient test, through neglect or exclusion of more truly justifying circumstances. The mere fact of practical universality in usage he will not admit as entitling any expression to sanction. Such strict purism is reprehensible. Its worst effect, however, arises from its specious appeal to the people who accept the dictum of the first instructor whose ruling is presented to them. Many words and phrases that are unquestionably established in usage could never have been considered good if the growth of the language were controlled by the purists.

The basis of true discrimination is communicable only through rules, and these rhetoricians call canons. These canons are found in all good books on rhetoric, and are well stated in the *Standard Dictionary*.

The best discrimination in the use of words

is not resultant from slavish acceptance of every dictum of any particular writer or teacher — even if the one chosen as authority be preëminently creditable.

Lindley Murray was a grammarian of the highest standing, yet Gould Brown showed incontrovertibly that in many matters his work was egregiously erroneous. Gould Brown's own work contains errors as bad as any of Murray's. What, for instance, could be more plainly wrong than Brown's assertion that *ignis-fatuus* is an English compound word, and that its plural is *ignis-fatuuuses*? Yet this absurd statement has actually been copied in other text-books of grammar.

Such things can not be accepted merely because some one says them. But neither should such occasional blemishes militate against the usefulness of artistic grammar and rhetoric. It seems only fair to say that some warnings that have been uttered must have been too abrupt and startling for real usefulness, and a good example is this, from one of the recent text-books, of which one of the foremost professors of English in our universities is a joint author: "It is absurd always to 'talk like a book,' that is, to maintain in ordinary conversation the language appropriate to a speech or an elaborate essay." Here is a fact not correctly stated, because it is insufficiently told. The absurdity noted is actual, but not in the way or to the extent of possible or probable misunderstanding of the teaching. We may readily admit that ordinary conversation is not pleasant when a speaker shows effort to choose high-sounding words or labors over the selection of grammatical constructions. Even ordinary conversation, however, is more enjoyable when words are well chosen without apparent effort and used with no violation of grammatical accuracy.

An impression of strenuous effort or high-flying in choosing words is as absurd in a book as it is in speech — unless for a special purpose, as in character-portrayal, when it may be a truly artistic feature of the work. The "talk like a book" that is better avoided in speech is, under ordinary circumstances, bad talk for a book. Indisputable grammatical construction is never absurd, and never displeasing, either in a book or in fluent speech.

The same professor of English, in a magazine article, emphasizes the fact that correctness in use of language is largely a matter of conventionality, and adduces, in proof thereof, an etymological reduction of an every-day phrase to its lowest terms — that is, a statement of the earliest source to which each word in the phrase can be traced. Using the literary primary meanings of these etymons, he says: "It would sound absurd to say, 'a clearing-up that has its foundation on a

straightened down-flowing'; yet we say 'arguments founded on correct derivation,' without a tremor, merely because our language has forgotten the figurative character of the words, and employs them as conventional signs for plain prosaic ideas."

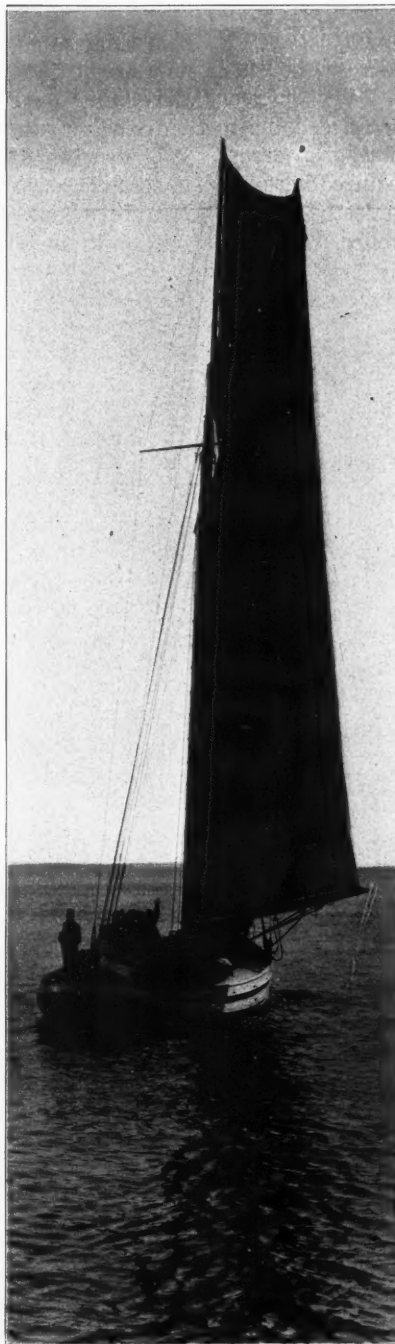
Such a teaching is specious, but evidently fallacious, arising from inadequate consideration. It is not hard to find good reason for thinking that such words are not simply "conventional signs for plain prosaic ideas," as is shown in an essay, written by the author's father, Francis A. Teall, A.M., whose philological and lexicographic attainments commanded the highest respect of the many eminent scholars who knew him.

"Speculation about words and their uses is a favorite employment of many writers; but their exertions seem to have a fatal facility for lapsing into dogmatic crudity or narrowness of view. A striking evidence of this tendency is afforded by the following paragraph, quoted in a book on rhetoric as from Professor Bain's *Rhetoric* (Part I., Chapter i.), a work which takes high rank as an authority: 'Our language has many combinations of words, indifferent as regards the metaphor, but fixed by us, and therefore not to be departed from. We say "use or employ means" and "take steps," but not *use steps*. One may *acquire* knowledge, *take* degrees, *contract* habits, *lay up* treasure, *obtain* rewards, *win* prizes, *gain* celebrity, *arrive at* honors, *conduct* affairs, *espouse* a side, *interpose* authority, *pursue* a course, *turn to* account, *serve* for a warning, *bear* no malice, *profess* principles, *cultivate* acquaintance, *pass over* in silence: all of which expressions owe their suitability, not to the original sense of the words, but to the established usages of the language.'

"The principle here set forth would make

English speech (and by necessary inference all speech) a mere hodgepodge of accidental 'combinations of words,' regardless of their special fitness for their specific uses; but that is surely

not the way language grows. In all spheres of activity the best possible adaptation of means to ends is the chief desideratum; and it would be strange if language were the only exception to this otherwise universal rule. It is not, however. 'The established usages of the language' have not grown up, like weeds in a waste field, at the will of the winds. There is a genius of language, under the guidance of which the thoughts of any people clothe themselves in words conformable to its racial idiosyncrasies and stage of development. In the process of growth one form after another is used, and thrown aside for a better or more expressive term, when one is struck out by superior intellect or fortunate chance and is generally accepted as an improvement; the effort being always to fix finally or provisionally upon that which fits most clearly or most agreeably to current habits of thought the particular use to which it is applied. This process is a never-ending one, and is constantly going on under our very eyes, to the great discontent of those who would have language a fixed quantity, stereotyped in the forms that commend themselves to their individual judgment or prejudices. It is not an arbitrary one, but has been, from the earliest times, the work of thousands of inventors, or 'makers' (poets), guided either by happy inspiration or painstaking search. Thus every metaphorical expression, as well as every lit-



ADIEU!

eral one, that does not consist of a mere name and its bald adjuncts, is the result of an intellectual evolution comparable to that which goes to the elaboration of the principles of an exact science."

Written for THE INLAND PRINTER.

MECHANISM AND ADJUSTMENT OF FOLDING MACHINES.

NO. IV.—BY PHILIP ZACE.



AFTER the first-fold rollers are properly set it is very seldom necessary to change them. Be sure that the top rods are tight, as they may work loose while running. When the rods rest on the sheet they are liable to mar the half-tone printings or crease the paper. Careful attention is required here.

In running work that is not perfectly dry, ink is apt to accumulate on the drum roller. This will

top rods should be moved up in line with the tapes. There is a series of adjustable needles in the first-fold knife to keep the paper from slipping as the knife is on its downward stroke. When the knife reaches its maximum depth between the rollers it hesitates for a fraction of a second before it is withdrawn, but the sheet travels continuously. The needles extend about one-fourth inch beyond the edge of the blade. When the needles are down too far they usually catch in and tear the paper as it is traveling through, or they may merely make a scratch across the type and half-tones. The operator should try all the screws which hold the needles in the blade, as they frequently work loose.



Photo by Eugene J. Hall.

"CHAMPION OF THE WORLD."

Plate by The Inland-Walton Engraving Company.

cause streaks or an apparent offset in the printed sheet. It may also cause the sheet to buckle at the first fold. Wipe the drum roller with a rag saturated with benzine and keep it clean at all times.

After the machine is extended to whatever size sheet you intend to fold, the rods and tapes should be set to cover the full range of the paper. Outside rods and tapes should come up to within one-half inch of the edge of the sheet. If they are too far away from the edge of the paper, the corners of the sheet are liable to sag down and buckle or turn over near the first-fold stop. The

Adjust the needles into proper position and if the above trouble occurs frequently it will be better to place small strips of paper between the needles and the knife to keep them from slipping.

A bent tooth in the first folder blade often tears the paper and prevents it from going through properly. Examine the teeth carefully and straighten them when necessary.

When the fold rollers pinch the sheet too tightly on one end they usually throw the sheet out of register. Run a sheet in slowly, stop the machine and pull the paper backward with the

hands. If one end of the rollers is set too tight, loosen the set-screws on the side of the rollers. There is one of these screws on every set of rollers. The operator must exercise care in setting these rollers in reference to the plunger mechanism on the packing box. If they are set too tight, they will strike the plunger and clog the packing box.

The parallel fold is a hard fold to work up to the stop, because the tapes do not carry the sheet the entire length of its course. An extra set of idlers should be attached to one of the rods under the sheet to press against the rollers, and to operate in conjunction with the idlers on the top rod

the grooves in the rollers and high enough against the roller to allow the clutch on the side of the perforator wheel to turn the same as the fold roller. Run the sheet through at the regular speed and then examine the folded signature. If the perforation causes the fold to extend over one side and out of register, the trouble will be found in the first folder blade, which may not be set low enough. The grooves which hold the bolts that fasten the first folder blade to the arm should be slotted, to permit of raising or lowering the blade when folding and perforating. The second folder blade should be slotted in like manner. The first-fold roller, in conjunction with the perforator,

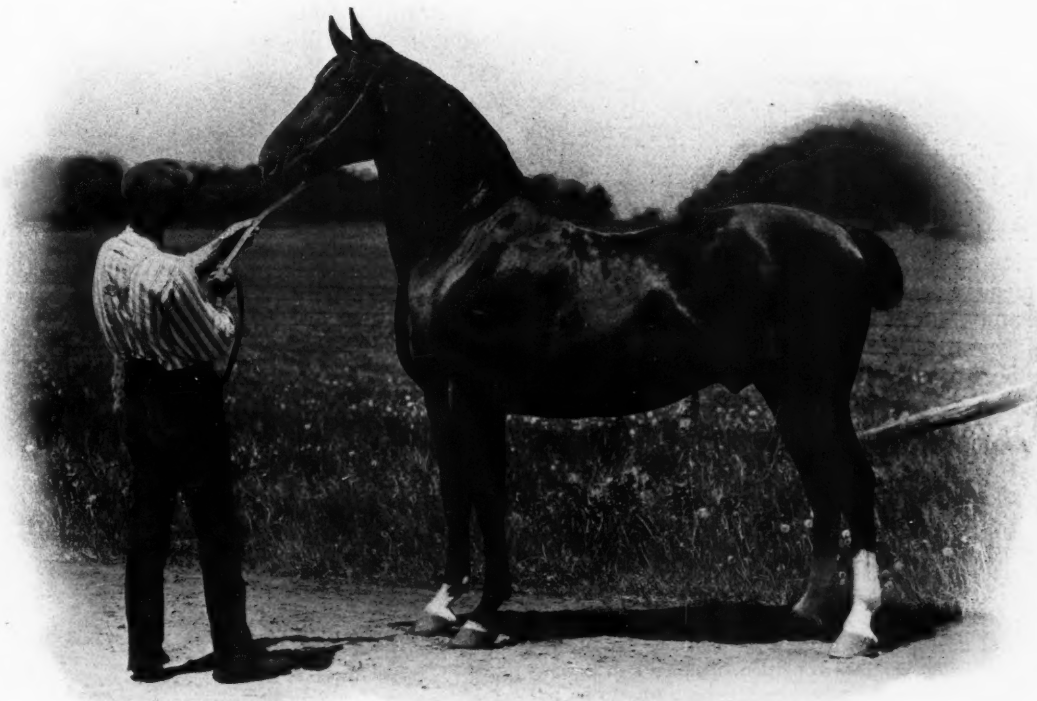


Photo by Eugene J. Hall.

PALADIN.

Plate by The Inland-Walton Engraving Company.

(previously described). The sheet passes between them and it is thus kept in proper motion until it arrives at the stop. Folder operators too frequently fail to use a sufficient number of idlers in folding parallel work and this accounts for the annoyance of sheets sticking to the top and bottom rods.

The head and side perforators require careful attention. It must be understood that this mechanism previously described is fastened on brackets — one perforator under the first-fold roller and another under the second-fold roller. In four-fold work both perforators must be set up to engage

cuts the third-fold heads, and the second-fold roller cuts the fourth-fold heads. As the sheet is going through the perforator it may swing one way or the other. This invariably results in an imperfect third fold, as the blade will crease the paper at the point of least resistance. If the second fold laps the paper out on the side, the first folder knife must be lowered; if it folds short of the edge, the blade must be raised. If the folding is inconsistent, put a little glycerin on the tapes and they will hold the sheets more firmly. Because the perforating of the third-fold heads is done when the sheet receives its first fold, it is plainly

seen that it will be more difficult to keep the succeeding folds true. The perforated paper will not travel as accurately as a smooth sheet. For this reason, it is necessary to be very exact in making the adjustment of the perforator wheels. If they cut the heads too deeply, the perforator wheels should be lowered with the assistance of the nut and bolt on the perforator bracket.

The tapes should be sewed with No. 30 thread, waxed, the same as is used for blank-book work. Light thread is to be preferred, as the fold rollers are more liable to cut the seams when heavy thread is used. The tape should be trimmed square on both ends before it is joined together and the knot should be placed out of contact with the surface of the printed sheet. Patent metallic



FIG. 20.

tape fasteners may be used on newspaper folders, but they are impractical for use on machines that handle high-grade coated and enameled papers. Metallic fasteners are sure to mar the half-tones and scratch the enamel. In sewing tapes, the operator should use the stitch shown in Fig. 20. Commence in the middle of the tape, sew back and forth and finish at the starting point. The threads should cross each other between the two ends of the tape. The spear heads and dotted lines mark the second row of overlapping stitches. The tapes must be closer together than shown in drawing.

(To be continued.)

ROMAN CAPITALS FOR DISPLAY.

The unexpected always happens in a country newspaper and job office, and in many instances half-page and even page advertisements have been known to come in on the day before publication, after the regular weekly changes of advertisements had been made, which left the cases in a badly crippled condition, making it a serious question as to how the new advertisement was to be put into type. In many cases this state of affairs can be avoided by the judicious use of roman capitals in bringing out certain lines of the underscored copy. Plain roman capitals are always legible, effective and neat, and their use in many cases is preferable to job type. Many advertisements that have portions that suggest the use of the small sizes of job type can be set in roman caps, and they will stand out as sharply and effectively if the right ideas of proportion, white space and arrangement are carried out. There is always an abundance of roman in the average shop and an occasional advertisement set as suggested will greatly relieve the hard-worked job-faces and help to keep the cases well filled for the unexpected work that will demand their use.

OF UNQUESTIONED VALUE.

THE INLAND PRINTER is a magazine of unquestioned value to all printers, from apprentice to foreman.—*Ralph I. Moulton, Pittsfield, Maine.*

Written for THE INLAND PRINTER.

SPECIALTY PRINTING.

BY GEORGE SHERMAN.

NO. X.—COUPON AND TICKET PRINTING.



RAILROAD tickets, mileage books, street railway transfers, trading stamps, coupons or theater tickets may require serial lettering and numbering in duplicate or triplicate, vertical and horizontal perforation, scoring, and, in some cases, eyelet punching or stapling. As a rule, each ticket-printer has his own particular method of doing this work. Some have an equipment of special machinery for completing several processes at one operation; others use automatic presses, with auxiliary attachments, which deliver the finished product; and still others manage to produce the work economically with an ordinary job office equipment by utilizing clever methods of production.

The automatic press is admirably adapted to that class of work which requires printing in one or two colors, numbering in duplicate and perforating. Such a machine, with auxiliary attachments, is shown in Fig. 1. It consists of an impression cylinder (C), a plate cylinder (B), a numbering-head cylinder, with five discs (E), and a perforator, located near the point H. The num-

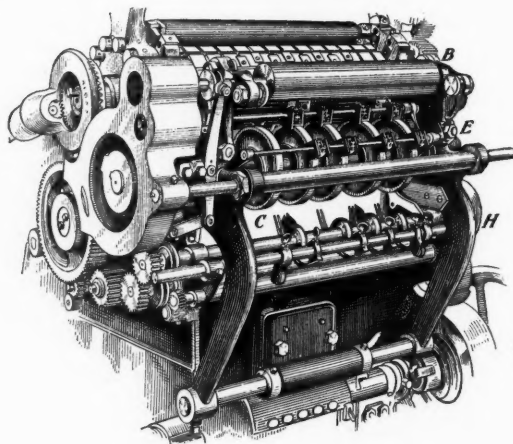


FIG. 1.

bering heads and the plate cylinder print on the same impression cylinder. The sheet is then carried by the tapes between a series of rollers which may be converted into male and female perforations, scoring or slitting wheels. These wheels may be adjusted any distance above one inch apart. If it is necessary to slit, score or perforate horizontally across the vertical perforations, the sheet is carried by tapes and turned at right angles to its previous course and passed between a second

set of perforators. Any quantity of numbering heads may be carried, up to the full capacity of the form. They may be arranged to print anywhere on the sheet, provided they do not approach each other closer than one and one-half inches. Fig. 2 shows the method of attaching the numbering heads to the auxiliary cylinder. In case the automatic feeder fails to feed a sheet properly a trip will stop the machine, and thus it is almost impossible to make an error in numbering. The perforators are of the standard male and female rotary type. Any number of them may be used so long as they are placed no less than one inch apart.

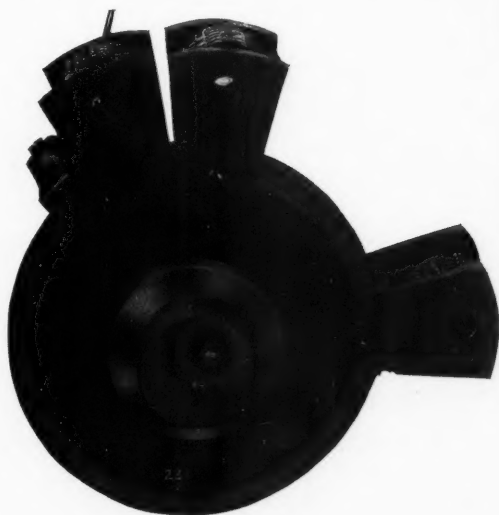


FIG. 2.

Ticket-printers who are using this machine can perforate, score and slit (down and across), number and print five thousand 15 by 18 inch sheets per hour.

The printer who is not equipped with special appliances, or who is unfamiliar with the best methods of producing the above class of work, will be unable to compete with the specialist. The main difficulty and the chief cost in producing all work which requires intricate numbering and serial lettering is in the number of changes required and the delays caused thereby. The presswork or the number of impressions required are rather a secondary consideration. While the country printer can not hope to meet the prices of the large ticket-printer who is equipped with special machinery, yet he may be able to retain a large share of the local work by using the most economical methods of production.

The theater ticket is one of the most difficult problems among this class of work. The numbering and serial lettering are usually of the most intricate character. It is impossible to construct special automatic machinery that will adapt itself to every requirement. No two floor plans are

exactly alike. There is a difference in both the number and the lengths of the rows of seats. Every house contains its series of long and short rows, which necessitates consecutive numbering up to some arbitrary figure. Then the numbering device must be reversed to figure 1, and this

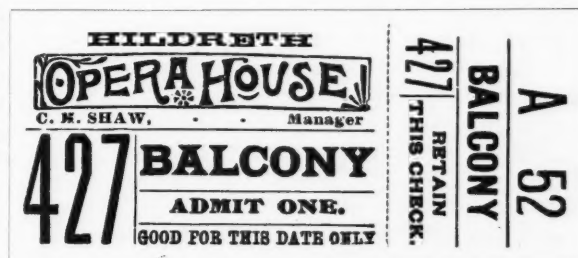


FIG. 3.

process must be repeated a hundred times or more to complete a single set of tickets for a one-night stand. At the same time it will be necessary to make changes, at irregular intervals, in the serial letters which indicate the rows, and the sections and date will require alteration in like manner. Years ago this work was done almost entirely with interchangeable rubber stamps. But this method

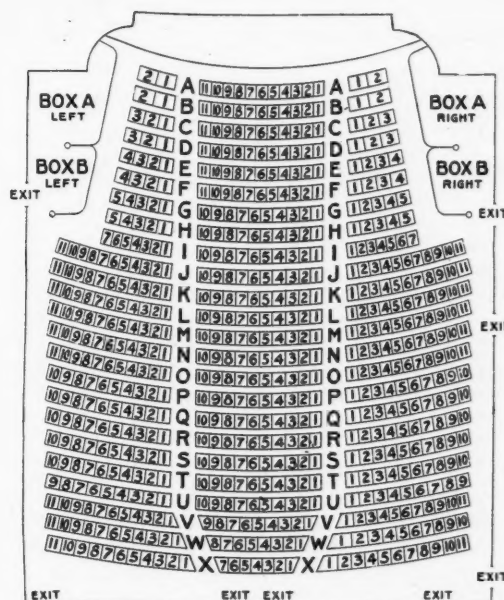


FIG. 4.

is slow — too slow for the rapid pace of this "automatic" period. The largest theater ticket printing-house in the country has an equipment of machines with specially constructed automatic numbering heads. All of these were built to order to handle this particular class of work. The tickets are printed from electrotypes and the paper is fed to the machine in a continuous web. It requires an operator and two or three attendants.

It is the duty of these attendants to watch the numbering heads and reverse their mechanism at the proper intervals. This work is usually done by girls, guided by the diagrams before them.

SMITH'S OPERA HOUSE		ROW A SEAT 1 LEFT MAIN FLOOR APRIL TENTH RETAIN THIS CHECK
EDWARD BROWN, Manager		
ADMIT ONE		
GOOD FOR THIS DATE ONLY		
<i>John Patton in Repertoire</i>		

Fig. 5.

The entire process requires accurate and rapid manipulation.

Fig. 3 shows a style of theater tickets now produced by a large Chicago house. The numbering and printing require two distinct operations. The main portion of the ticket and the unnumbered part of the stub are printed from a set of electrotypes, ten or more on, at one impression. The numbering and serial lettering is done afterward

will profit him to add a few necessary materials to enable him to produce the work cheaply and with facility. A few typographic numbering machines, together with a practical method of production, will help him to do the work quickly and at a reasonable price. An illustration of the method employed by a printer who is handling this class of work in a small way will be of value in this connection. This printer is furnishing tickets for four houses, each of which averages about fifteen performances a month. For example, let us presume that he receives an order for six sets of reserved seat tickets. The diagram of the main floor of the house is shown in Fig. 4. The seating capacity of this part of the house is 626. That means 3,756 tickets to complete the order. The printer has a stock of electrotypes for the main portion of the tickets of each house (Fig. 5), including the words "Retain this check," on the stub. These electros are trimmed close to the bottom cross-rule, so that the name of the attraction may be supplied in type. The stock is cut double, so that ten tickets may be printed at one time and turned on the same sheet, thus making

A 1	B 1	C 1	D 1	E 1	F 1	G 1	H 1	I 1	J 1
MAIN FLOOR	MAIN FLOOR	MAIN FLOOR	MAIN FLOOR	MAIN FLOOR	MAIN FLOOR	MAIN FLOOR	MAIN FLOOR	MAIN FLOOR	MAIN FLOOR
LEFT	LEFT	LEFT	LEFT	LEFT	LEFT	LEFT	LEFT	LEFT	LEFT

Fig. 6.

on a rapid paging machine. These machines are also supplied with special numbering heads, which may be adjusted to print up to any desired figure and then repeat. The serial lettering is done with special letter wheels, also carried by the numbering head. A set of tickets for a house in which the rows are of uniform length may be numbered automatically by this method. If the rows are of various lengths it is necessary to reverse the numbering wheels by hand at irregular intervals. The cost of a set of tickets, to a house with not more than one thousand reserved seats, ranges from 40 to 80 cents, according to the character of the numbering. There is a good profit in the work, even at this price. Twenty years ago the cost of a similar set of tickets ranged from five to eight dollars. Numbered tickets were seldom used on this account. Managers preferred to insert the figures with a pen, when necessary.

Managers of the two or three theaters in a small city usually prefer to have their printing done in a local shop, rather than bear with the inconvenience and delay of a mail-order business. The local printer is not compelled to meet the very lowest figures of the theater ticket specialist in some distant city. If he can secure all the ticket printing required by these two or three houses it

twenty single tickets. The above order will require 188 of these large sheets. About twenty extra sheets should be added for purposes which will be explained later on. This will make about thirty-five sheets for each set. A row of ten electrotypes, including the opening date on the stub, is locked in a Gordon chase, and this form is worked and turned on thirty-five sheets of the stock. Five "lifts" are required to complete the first impression for the six sets, and to make the changes in the date figures. A small box of figures

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Fig. 7.

is at the disposal of the feeder for this purpose. The entire delay in making the changes will consume about ten minutes. If the work is in a hurry the numbering should be done on another press. A diagram of the numbering form is shown in Fig. 6. "Main Floor — Left" consists of a continuous strip of ten, unmounted. This narrow electro is hooked on each end to a patent base, so that it may be removed without unlocking or lifting the form from the press. Similar electrotyped

strips, containing the words "Main Floor — Center," "Main Floor — Right," "Balcony," etc., are kept on hand to replace other strips, whenever necessary. The numbering is done with a single-wheel typographic numbering machine, similar to sales-slip machines, which number from one to ten and repeat. The machines are locked to print on the blank end of the sheet, so as to register when the turn is made. This form will complete the first ten rows — left, center and right — by

extra tickets will be required to complete the set. These are filled in with a rubber stamp, using the extra blank sheets for the purpose. Six complete sets of tickets have been completed in less than two hours by this method. The forms are always kept standing for this class of work. Undated tickets for an entire season can be printed with less trouble. The numbering and serial lettering of six sets of tickets is completed without lifting the form from the press.



Plate by The Inland-Walton Engraving Company.

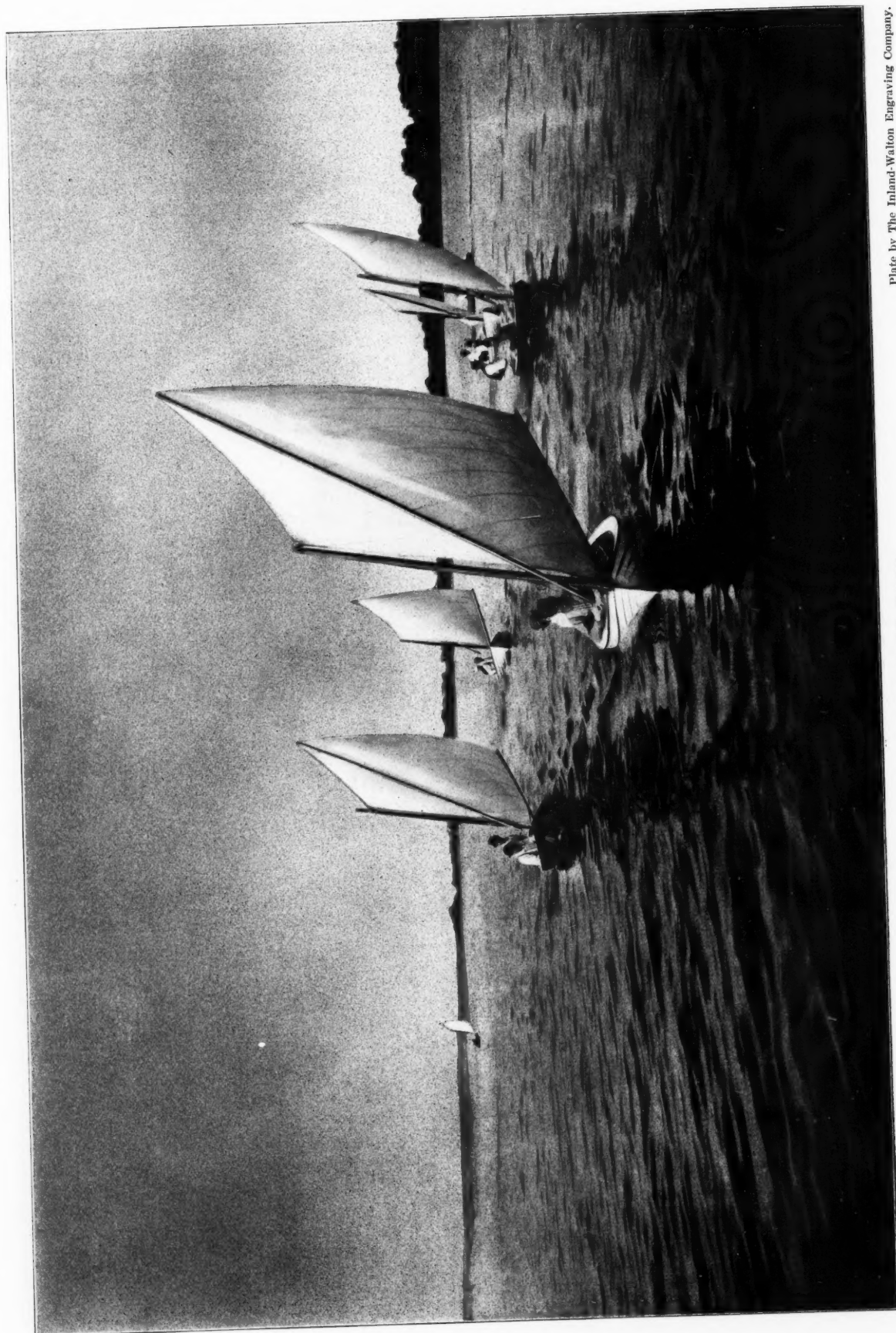
A SUMMER OUTING.

Photo by Geo. A. Furneaux, Chicago.

twice changing the electrotyped strips. The letters from A to J consist of a similar strip, hooked in like manner. This strip is now replaced with another containing the letters from K to T. When there are but a few rows in which the set numbers are less than ten, the useless tickets are cut out and thrown away, as the value of the stock would scarcely compensate for the time required in making the change. A sufficient quantity of short-sized stock is kept on hand for use when there are a great number of rows which average less than ten seats each. No change in the form is required in printing these short rows. A thin sheet of paper placed to the gage-pins prevents an offset on the tympan. Twenty-four rows of this diagram contain eleven seats. Therefore, twenty-four

Church envelopes frequently require both dating and consecutive numbering. This work is usually done with a combination of automatic numbering wheels and non-automatic dating wheels. Machines of this character are kept in stock by all manufacturers of typographic numbering machines. Five automatic wheels precede the dating attachment, and number from one up to 99,999, changing at each impression of the press. This machine is also fitted with an attachment so that the same number can be printed any number of times. The machine can be adjusted to do this without taking the form out of the press. Fig. 7 is a facsimile of an impression made by one of these machines.

(Concluded.)



THE BOAT RACE.

Soft blows the wind that breathes from that blue sky! — Coleridge.

Plate by The Inland-Walton Engraving Company.



(Entered at the Chicago Postoffice as second-class matter.)

A. H. MCQUILKIN, EDITOR.

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SUBSCRIPTION RATES.

One year, \$3.00; six months, \$1.50, payable always in advance.
Sample copies, 30 cents; none free.

SUBSCRIPTIONS may be sent by express, draft, money order or registered letter. **WE CAN NOT USE CHECKS ON LOCAL BANKS UNLESS EXCHANGE IS ADDED.** Send draft on New York or Chicago. Make all remittances free of exchange, and payable to The Inland Printer Company. Currency forwarded in unregistered letters will be at sender's risk. Postage stamps are not desirable, but if necessary to remit them, one-cent stamps are preferred.

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Furnished on application. The value of THE INLAND PRINTER as an advertising medium is unquestioned. The character of the advertisements now in its columns, and the number of them, tell the whole story. Circulation considered, it is the cheapest trade journal in the United States to advertise in. Advertisements, to insure insertion in the issue of any month, should reach this office not later than the eighteenth of the month preceding.

In order to protect the interests of purchasers, advertisers of novelties, advertising devices, and all cash-with-order goods, are required to satisfy the management of this journal of their intention to honestly fulfil the offers in their advertisements, and to that end samples of the thing or things advertised must accompany the application for advertising space.

THE INLAND PRINTER reserves the right to reject any advertisement for cause.

Single copies may be obtained from all news-dealers and typefoundries throughout the United States and Canada, and subscriptions may be made through the same agencies.

Patrons will confer a favor by sending us the names of responsible news-dealers who do not keep it on sale.

FOREIGN AGENTS.

W. H. BEERS, 170 Edmund street, Birmingham, England.
W. C. HORNE & Sons (Limited), 5 Torrens street, City Road, London, E. C., England.
JOHN HADDON & Co., Bouverie House, Salisbury square, Fleet street, London, E. C., England.
RAITHBY, LAWRENCE & Co. (Limited), Queen street, Leicester, England.
RAITHBY, LAWRENCE & Co. (Limited), 1 Imperial buildings, Ludgate Circus, London, E. C., England.
PENROSE & Co., 109 Farringdon Road, London, E. C., England.
M. P. MCCOY, Phoenix place, Mount Pleasant, London, W. C., England.
WM. DAWSON & Sons, Cannon House, Breams buildings, London, E. C., England.
ALEX. COWAN & Sons (Limited), General Agents, Melbourne, Sydney and Adelaide, Australia.
COWAN & Co., Wellington, New Zealand.
F. T. WIMBLE & Co., 37 Clarence street, Sydney, N. S. W.
G. HEDELER, Nürnbergerstrasse 18, Leipzig, Germany.
H. CALMELS, 150 Boulevard du Montparnasse, Paris, France.
JOHN DICKINSON & Co. (Limited), Capetown and Johannesburg, South Africa.
A. OUDSHOORN, 179 rue de Paris, Charenton, France.
JEAN VAN OVERSTRAETEN, 8 rue Joseph Stevens, Bruxelles, Belgium.

3-4

EDITORIAL NOTES.

A PRINTORIAL Jeremiah opines that if the railroad-rate law becomes operative it will relieve the companies of the necessity of doing much printing. Does it mean "23" to the fat and profitable "tariffs?"

WHILE you are thinking about how you will invest your surplus this year, don't forget that keeping the machinery in prime condition and having an abundance of good material on hand will help to swell it.

WHAT do you think about oral orders? Have they ever made you trouble? Have they let you make others trouble? Do you give them? Do you take them? Can you give an example of a mix-up from them? Men are willing to take oath that they are right, then find that they are wrong because it was not in black and white.

HE is the wise apprentice who shirks nothing which comes his way, but rather invites difficult propositions. To make errors calling for correction is expected of a learner, his capacity being judged more by the thoroughness with which he learns his lesson than by the excellence of his first efforts on new work. When the apprentice develops into a journeyman he is expected to know how and not to experiment. Anxiety to tackle a new line of work on the part of a young artisan is synonymous with enterprise in the business world, and is always a desirable quality.

DAILY are we reminded of the necessity for and desirability of Care. There was a deplorable lack of system and exactness in the case of the publishing house of which inquiry was made of two officials concerning the circulation of one of its publications. The inquirer was informed under identical dates that the circulation was fifteen thousand and thirty thousand. Though the manager and the president of the company didn't "get together" on the number of subscribers, they were at one in their knowledge that each and every reader was just aching to read the prospective advertiser's announcements. "Honesty is the best policy," and a system of checks and balances is a great aid — sometimes.

TO SEE ourselves as others do is usually interesting when one recovers from the shock. Mr. W. Gamble, the noted English writer on process engraving, says American photoengravers are not successful in producing colorwork, and that they "feel they are behind," which is an un-American state of mind, surely. But the critic applies a mild salve for the wound given our pride when he says

the American by reason of his hustling proclivities is not adapted to attain proficiency in that line because "he has not the plodding, patient disposition and studious habits of English and German workers." In Mr. Gamble's opinion this is another case where the race is not to the swift.

THOSE in authority at the national capital are economizing on Uncle Sam's printing bill and hope to show a considerable saving at the end of the fiscal year. Their confreres in Great Britain have been doing the same sum, and report an answer of over \$900,000 saved on printing and stationery. The public departments had their printing bills cut \$50,000, while the politicians in Parliament were not so good to the printer by \$25,000 as they were in the preceding years. These reductions are doubtless justifiable, but there is hope in the thought that governments of enlightened peoples must expect to spend more and more — and vastly more — on printed matter. Cold type and printers' ink are to such governments what air and food are to individuals — indispensables needed in ever increasing quantities.

A BRITISH statesman — evidently one of this year's crop — rejoicing in the happy name of Money, has discovered that the printers of the government contractor live from hand to mouth, and is amazed, astounded and filled with regret. He wants some provision made whereby His Majesty's printers may always have "the rocks and tobacco in the old tobacco box," as it were. Money can do much, but this particular Money will have capped the climax if he succeeds in devising means whereby some printers will not be living exponents of impecuniosity, because — well, printers will always be printers — large-hearted, open-handed, devil-may-care fellows, the bohemians of the artisan world. They all like money — whether it be the kind they know so little of, or the M. P. who apparently loves but knows little of them.

MANY and many an employer who loses sleep and walks the floor to increase the output of his producing departments is oblivious to the most obvious leaks among the non-productive forces. The inefficient relative or protégé of a friend or customer is just as expensive a luxury as any other sort of incompetent. It smacks of comic-opera business, but we have in mind an office employing regularly two compositors, a boy and a pressman, which had a managerial and clerical force of four of the family. The proprietor had little knowledge of the printing business, but he loudly ascribed his failure to his inability to secure industrious craftsmen. This extreme case serves to illustrate

the cause of many failures. A wise man stops the leaks in the barrel before he exhausts his energies carrying water to fill it.

PERHAPS no institution has received more unstinted praise from outsiders than the Union Printers' Home. Strangely enough, its management has been provocative of more criticism by members of the union than all the union's other enterprises combined. Fortunately for all concerned, these complainings have been for the most part trivial or on slight foundations, but none more so than the latest — that groceries were purchased from a man who spoke slightly of unions and that all supplies do not bear the union label, the idea being that the Home management should go without desirable things — necessities maybe — unless they bear the label. Doubtless the label serves its purpose in trade-union propaganda, but there is a disposition to make of it a holy thing — a fetish — which will in the end react to the detriment of labor's cause. Our fanatical friends should not forget that the label is merely a symbol and not the substance of their aspirations. People not only laugh at but they become disgusted with and repudiate a movement when it is conducted in an absurd way.

ONE of England's successful printers — Mr. Charles T. Jacobi, of the Chiswick Press — in an address to a technical school class on artistic typography, said: "Beyond the workshop experience and classroom study there is much more to be learned. One way of doing this is to keep pace with the technical literature of the trade, and I particularly urge this because it broadens our views. Otherwise our ideas and notions are apt to become cramped or confined to the limits in which we move. To keep pace with improvements in machinery and materials we must go to our trade journals. Besides this, we can often gather through these organs what our friends and competitors, at home and abroad, are doing in their particular spheres." This applies with as much force to the craftsman at far-north Dawson City as to those who heard the words fall from the speaker's lips. The more widespread the practice of an art, the more progressive its tendencies, the greater the need for a systematic perusal of trade journals by those who would be in the van, and the best journal is that which has the most accurate and illuminating information on the everyday problems that perplex the craft at home and abroad. These important though dry subjects do not easily lend themselves to such treatment as permits of making literature. But the instructive and profitable-to-the-reader trade paper is not a

literary enterprise; its mission is an altogether different one, not one whit less important than that of an exponent of the higher art.

THE SAN FRANCISCO DISASTER.

CHICAGO and Baltimore in the days of their disaster, when the fires were still glowing over the vast expanses of ruin, gave an exhibition of self-reliance and determination that received the sympathy and applause of the world. The

of the great city was even more marked in her hour of trial than in the days of her greatest prosperity.

It may not take long for the rebuilding of the city on a grander and more enduring plan, but short as that time may be, it will be long enough to test the endurance of printers and others in the trade who have been unable to make provision beyond their temporary needs. Already pressmen, printers, binders, engravers, etc., have been forced to come east seeking employment pending the



SNODGRASS HILL, CHICKAMAUGA.

Plate by The Inland-Walton Engraving Company.

Rest with your still and solemn fame;
The hills keep record of your name,
And never can a touch of shame
Darken the buried brow.—*Hemans.*

qualities of courage and fortitude held in suspense in every nation, showing sporadically only in great crises, reaches sublimity chiefly in that composite nation America.

San Francisco, one of the most cosmopolitan cities on the continent, enduring the mysterious terrors of an earthquake, the horrors of conflagration, with the water mains destroyed, and a small stock of dynamite the only recourse to check the advance of the flames, rose to the occasion with a spirit unequaled in the history of the world. Her citizens faced their great loss cheerily, and a debonair fellowship and helpfulness characteristic

resumption of activity in the stricken city. THE INLAND PRINTER invites all seeking situations who are now out of employment in consequence of the fire and earthquake to make use of its employment agency and of its want advertisement columns free of charge. It may be that the trade press generally may see advantage in this method of aiding the people of San Francisco and every paper representing special industries and trades can give assistance in this practical way.

ORDERLINESS is the handmaid of accuracy and accuracy is the master key to success.



AT ATLANTIC CITY.
Love the sea? I date upon it — from the beach.— *Douglas Jerrold.*

Plate by The Inland-Walton Engraving Company.

RAISING PRICES.

IT has been said that the English way of meeting the dilemma of a discrepancy between income and expenditure is to reduce the expenditure, while the American method of dealing with the same difficulty is by increasing the income.

There are many ills in the printing business that can be remedied by raising prices, and any good reason that can be brought forward for making an increase in the charge to the customer should be carefully looked into. It would, of course, be folly to try to put into effect a rule that would call for the uniform advancement of prices all along the line, different cases requiring different treatment, and it is well worth our time to give to each case the consideration that it deserves.

If, after looking the matter squarely in the face, you come to the conclusion that you are not getting as much return out of your business as you think that you are entitled to, if you really know what it costs you to produce work, then it is time to try to devise means by which you can best effect the increase in the charging price for your work.

We will grant that it is not the easiest matter to raise the price in the case of reprint jobs. When it comes to raising prices nearly every printer will recall customers who would simply fly off at a tangent at the mere idea of paying more for any of their work. It would be inviting an attack of apoplexy or heart disease to even suggest such a thing. But it is entirely probable that they would entertain with something even akin to equanimity any propositions that would tend to lower the cost to them. Of course, in order to make the jobs somewhat less expensive for such customers it becomes necessary to make some change in them, but so long as it is going to be money in their pockets they will without doubt listen to your propositions. Maybe the occasion will require the use of a cheaper stock than was used before, or likely a less expensive kind of binding would answer the purpose as well, or perchance a set of electros and running the job double solves the problem—when you get your mind right down to it the will will probably find the way—and whatever it may be, do not give all the advantage of the saving to the customer. With a perfectly clear conscience you may be able to convert a loss into a profit, and if in the operation it should happen that you lose a few jobs to your enterprising competitor, if you are sure that he does not know a better way of doing these jobs that you have been losing money on, why, maybe with Christian fortitude you may be enabled to bear up under the affliction.

Whenever by trying to make a paying job out of a piece of work that has previously been a profitless proposition you are rewarded by losing

the job, just use the time it would have taken to do the job if it had not gotten away from you in hunting out from your work another such example and see what you can do with it, and if you should lose it try again. If in your quest you should lose enough work to keep from being rushed to death just take a few days off and go fishing; it will do you good and pay better.

A. K. T.

AN INVESTIGATION OF TRADES UNIONS.

"STUDIES IN AMERICAN TRADE-UNIONISM" (Henry Holt & Co., New York), is an unusual book—one is tempted to use that much-abused term unique—so far as the manner of its making is concerned. It is one of the results of the investigation into trade-union life and activity which has been conducted by Johns Hopkins University during the past three years. The book contains, including the introduction by the well-known Prof. Jacob H. Hollander, who has served the state in many fields as an investigator, twelve chapters. Two of these—"The Government of the Typographical Union" and "Collective Bargaining in the Typographical Union"—by Dr. George E. Barnett, are of especial interest to many readers of THE INLAND PRINTER. The others have to do with various unions and employers' associations and are written by college graduates who aim to become expert investigators of industrial conditions. The character of the authors is demonstrated by a sketch of two of them. Doctor Barnett is associated in political economy at Johns Hopkins and the best posted man on organizations in the printing trades that we have; the other, William H. Buckler (who contributes "The Minimum Wage in the Machinists' Union"), is one of Maryland's wealthy, public-spirited citizens, has been a member of one of Baltimore's leading law firms and is dipping into diplomacy as secretary of the special embassy to the Spanish royal wedding. Other contributors were poor in purse and lowly in station, but none the less earnest and honest in their endeavors to unearth the truth. A sketch of how the work was made will show with what care the ground was covered. A man being assigned a subject, the university assisted him in collecting data that would be of service. Constitutions, circulars, publications, minute books, private and semi-private letters and reports were sought and obtained. These were critically read and digested. Correspondence with well-informed persons was resorted to to clear up doubtful and obscure passages, and if this failed, the knowing ones were interviewed. The investigators spent months getting information at first hand from official records at the headquarters of organizations of employers and employees and from the principal actors in the various movements.

At stated intervals each investigator was required to read the result of his work before the class, augmented by the professors. To some this must have been an ordeal, for it became the duty of all to challenge statements, calling for proof, and dissect the conclusions. Nothing could be devised which would be a more effective guard against "hot air," of any of the many varieties, which is the bane of books on the labor question. It is not claimed the essays are without error, but the manner of their making is guarantee to those deeply interested that there is creditable information within the covers of "Studies in American Trade-Unionism."

In the introduction, Professor Hollander points out the lack of adequate investigation in America of trade-unionism and other economic fields. But a change has been wrought and now "economic science in the United States has come to be studied with a vigor and activity unequaled in any European country and unsurpassed in the case of any of the natural sciences."

He also refers to the enmity that long existed between trade-unionists and economists and gladly notes its disappearance, due in part to the adoption of newer and truer methods of the economist, and the consequent recognition by the unionist that the scientist is not an advocate, but an investigator — a delver after truth.

THE TRADE SCHOOL.

WE notice that a central labor organization in the East has declared war on "all trade schools" and calls upon its subordinate bodies to prohibit members from teaching in them. Knowing nothing of the special case which provoked this action, and knowing also that grievous abuses may flourish in trade schools, details can not be discussed, even if there were an inclination to do so. The term "trade schools" is vague; it is fair to assume, however — at least the generality of mankind will do so — that all forms of supplementary industrial education come under the ban of this resolution. This is a short-sighted and untenable position — one that some labor organizations in Europe have been compelled to abandon. The logic of events is against those — especially workmen — who oppose supplementary trade education just as surely as it was against those who in an early day opposed that elementary education which is now the right of every child.

The men who adopted the condemnatory resolution know as mechanics and artisans that with the introduction of machinery and the subdivision of labor it is extremely difficult for a youth to acquire a thorough knowledge of his trade. They are also aware that the standard of general all-

round proficiency among workmen is trending downward, rather than upward. Not that men are less intelligent or lack in industry, compared with those who preceded them, but because conditions are not suitable to the easy and profitable making of journeymen. To rave against such a situation is unavailing; the men who in the past took a pride in "turning out" apprentices obviously lost no money on that account. If they were in the flesh and in business now they would follow the custom of the day; for the most part, they could not afford to do otherwise.

Now, who suffers from this system which evokes half-baked workmen from the shops — men who know how to do some one thing, but have no conception of the properties of the materials they handle and little theoretical knowledge of the processes which preceded and followed theirs in the making of the finished article? The specially alert and unusually adept will "make good" some way — nature's endowment assures them their measure of success. Those who bear the burden imposed by the system are those of average mental attainments and ordinary adaptability — in other words, the great mass of the workers. To this class supplemental trade education opens a way to overcome the defects of our industrialism and to develop to the utmost the powers nature has bestowed. This is the class that is the backbone of all activities, commercial or otherwise; around it the trade-union philosophy developed, and on its behalf the movement has gone forth to battle. Unionists have always and everywhere insisted that wages should be based on the productive capacity of the average man — not of the abnormal workman. This has ever been the central idea in their demands.

If there were no record of unions having opposed trade education and being compelled to recant, the fact that opposition will be detrimental to the average man is sufficient to show the error of such an attitude. In the unions the ordinary man is bound to be a factor and he will not be deprived of an opportunity to equip himself for the battle of life. He can dominate, right or wrong, and will do it easily when he is on the side of progress and enlightenment. Abuses will be exploited under the cloak of industrial education, and they should be fought with vigor, but to condemn the principle, as this central body apparently does, is not only wrong, but it leaves the weeds of abuse to flourish unmolested. If the unionists are wise they will learn from the experience of their European fellows and watch carefully and sympathetically the coming innovation, so that the greatest good may come to those they are most vitally interested in — the average men, who have to fight hard for all they achieve.

TRADE CONFERENCES.

THE eight-hour struggle has settled down to a test of endurance between the International Typographical Union and those employers who refused to concede the demand, and who now constitute the United Typothetæ. While the battle line was not so long as might have been expected, there has been abundant justification of the prophecy made in these columns, that those who yearned for a conflict would have their longing satisfied. This affair followed an era of unprecedented peace in craft circles, and it appears that

sufficient to allow the strikers as much as \$15 a week. This impost is not maintained for sentimental reasons solely, though comparatively few unionists would baldly desert their fellows after they had relinquished their jobs for principle's sake. As long as the organization is menaced the assessment will be continued, for what the unionists deem good business reasons. On being asked when the assessment would be declared off, an influential member of a large eastern union, whose contribution is about \$4 a week, voiced the spirit of the militant ones in replying: "Not while we



Photo by Homer Knight.

SUNDAY IN THE PHILIPPINES.

Plate by The Inland-Walton Engraving Company.

the outbreak marked an epoch in industrial warfare in the typographical world. Until the eight-hour movement was launched, it had been the custom to have a number of small strikes about sundry and inconsequential matters, and when over there was little settled. And because of their being nothing of importance involved, the end was reached in two or three weeks.

This has been a battle royal because great interests are at stake and the outcome is bound to have a far-reaching effect on the industry. In cities where the strike has been in progress for six or eight months, employers are still seeking men, and union men are still paying assessments

are under fire." According to this view, so long as the employers resist the union will fight, and vice versa. This means a long-drawn-out struggle with appalling waste — all because there was lack of common sense and foresight. It is impossible to estimate what it has cost employers to secure men, in loss of work and other incidental expenses of a strike, but we can get an inkling of the wastage from the union side. Assuming that forty thousand members of that organization are employed, a tax of ten per cent for strike purposes means that all the wages of four thousand men are devoted to the purpose. Taking the low figure of four dependents to each wage-earner, the resultant

amount is equivalent to the wages fund of a community of sixteen thousand souls. Before the days of large and regularly paid strike benefits, some one estimated that in well-contested struggles, employers were penalized, in one way and another, \$10 for every dollar expended by the union. If in this instance the expenditure has been dollar for dollar, the drain has been heavy. All this without reference to the enormous loss in wages suffered by the workers, who take such happenings philosophically, for being on strike is not nearly so fearful a contingency as being out of a job.

On top of this is the severe shock given the trade by the arbitrary reduction to eight hours. This affected the "innocent bystander," as it were — the employer who remained neutral, expecting that ere January 1 rolled round there would be some means devised whereby the transition could be brought about with the minimum of friction. We know now that the union officials were not averse to such a settlement of the controversy, and were behind the liberal proposals made at the Detroit conference. It is among the possibilities that if negotiations had been entered into before the first blow was struck, the date of enforcement might have been postponed on assurances that the Typothetæ would not then oppose the establishment of the eight-hour day. So all the waste and worry, all the disturbance and hard feelings are due to the ill-considered refusal to follow the custom of the craft and "talk things over" in a fair and honest manner.

Some followers of the graphic arts do these things better. The lithographers met the same questions on the same day, but in a different way. The parties in interest came together and the eight-hour day was instituted in a manner which has brought contentment to all of one party without impairing the prosperity of a single one of the others. This is as it should be, and those who would have it otherwise may be following ideals and actuated by high motives, but they are marplots.

THE METRIC SYSTEM.

THE *Monetary Times*, of Toronto, Canada, in a recent issue, says: "The opponents of the Metric System seem to be possessed with the very enthusiasm of resistance to its adoption. Within a fortnight we have received three different batches of literature combating the system, two of them by post from the United States, and one conveyed to us by a Toronto manufacturer." After reciting in detail the character of the opposition's material, the *Times* continues, in referring specifically to some of the literature, "'The Metric Fallacy,' a lecture at Cornell by Frederick Halsey, who is an American authority on the subject; and

lastly a 230-page book entitled 'The Metric Fallacy,' of which, however, the last 100 pages bear at the top of the page the subtitle, 'The Metric Failure,' so determined are its authors, S. S. Dale and Fred A. Halsey, so full of threatenings and slaughter, that the system has no chance of sympathy or even life." . . . "The book says 'the changing of established standards is impossible' . . . 'The trend throughout the world is toward the supremacy of the English language and the English yard-pound.' This book is the most cogent collection of argument against the Metric System that we have seen." The *Times* says it is in place for the advocates of the system from Lord Kelvin to Simon Newcomb and the various boards of trade to furbish up their armor, also that the system's most pronounced advocates are German scientists and manufacturers, conceding, however, the existence of a large and growing following in Great Britain. "But many American engineers, manufacturers and writers demur entirely to its necessity and even question its relative convenience." The book is published by the D. Van Nostrand Company, of New York, and sells for \$1.

Apropos of the Dale and Halsey contentions and their "Much ado about nothing" (seeing they have themselves denominated the system a "*Failure*"), it is desirable to look on the other side of the ramparts and see what signs of activity there may be in the thing they so trenchantly decry. A "*Failure*" is dead already, so why waste 100 book pages in setting out a list of the funeral habiliments? It must be a case similar to the Irishman's chicken that hopped about after decapitation. Pat philosophically declared the hen *was dead*, but "had not yet come sensible on it."

The *Business World* reports that, with a view of adopting the "*Failure*" in Canada, the government has engaged Prof. J. C. McLennan, of the University of Toronto, to devote the next year to explaining the system in all the leading cities, from Halifax to Vancouver. His first lecture was delivered at Stratford on February 9, before the board of trade, which body unanimously adopted resolutions urging the adoption of the system.

Why do not Dale, Halsey, et al., *insist* on the rehabilitation of the L. S. D. Monetary System, at least on their friends? They seem to forget that in 1800 the money values of the United States were still noted in England as pounds, shillings and pence, though the mint at Philadelphia was established in 1791 and Congress legalized the present decimal system of coinage in 1792.

In colonial times, the pound had various values, according to its habitat. In New England and Virginia its value was 15 shillings sterling; in New York and North Carolina, 11 s. 3 d.; in New

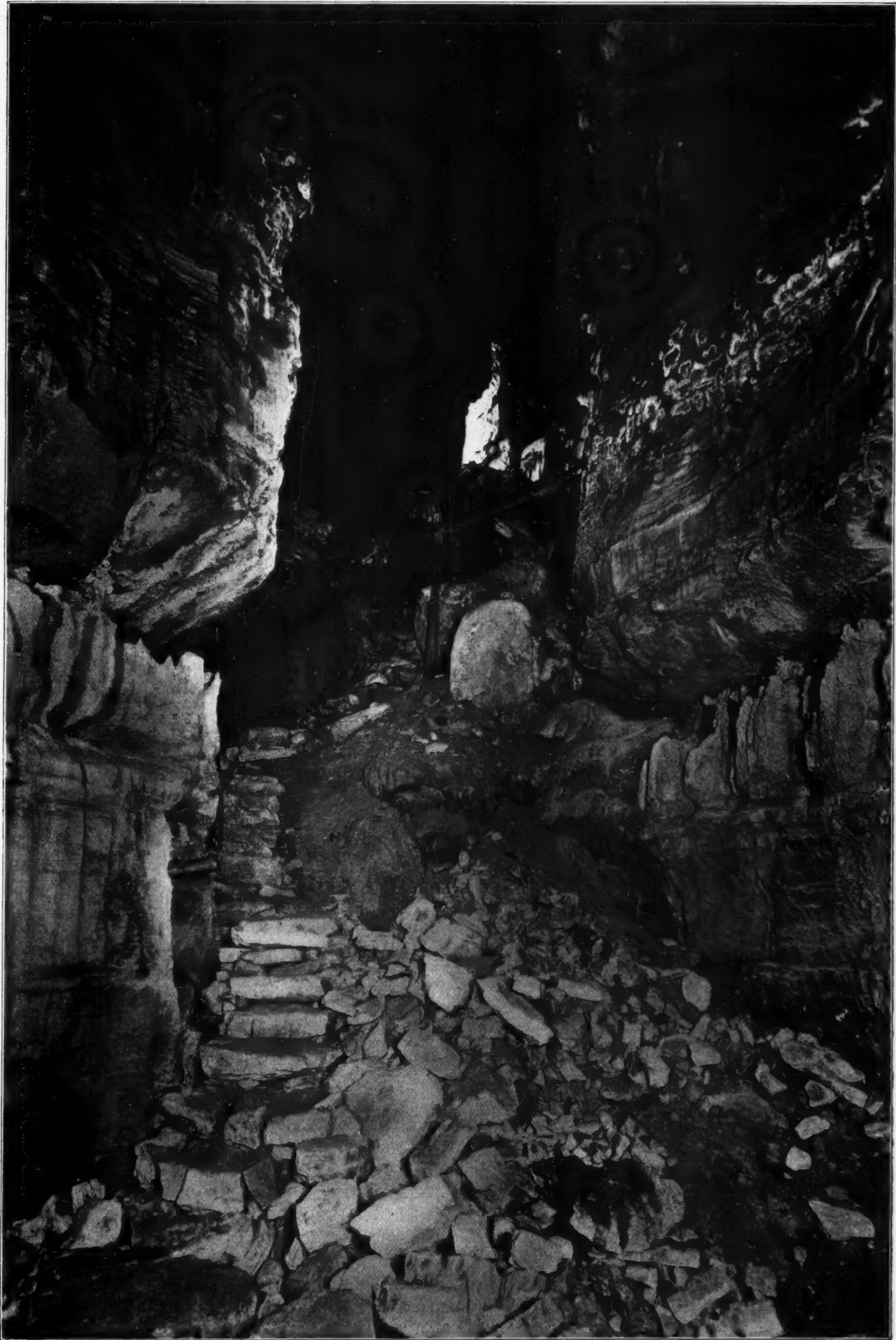


Photo by Eugene J. Hall.

Plate by The Inland-Walton Engraving Company.
MAMMOTH CAVE OF KENTUCKY.

Jersey, Pennsylvania, Delaware and Maryland, 12 s.; and Georgia, 18 s. sterling. The dollar equivalents are purposely omitted so as to give a practical illustration of the "desirability" of returning to this method of counting our monetary "goings out and comings in."

To get to the crux of the matter, how would the ultra advocates of a method that is obsolete and one that gives more chance for errors hundreds of times over than the one they so blindly decry, delight themselves in doing the following sum, which we extract from a "Miscellaneous Arithmetic," published at London in 1773?

"A tradesman stands indebted to several persons, as follows, viz.: To A, £50 17 s. 6 d.; to B, £119 14 s. 8 d.; to C, £40 10 s. 6 d., and to D, £141 19 s. Now, as his whole estate amounts to no more than £327 15 s. 10½ d., how must it be divided among his creditors that each man may have a share in proportion to the debt due him?" Four 3¾ by 6½ pages are devoted to the solution of this problem and it would be interesting to know how many of the "100 pages" Messrs. Dale and Halsey would require.

Is either Mr. Dale or Professor Halsey aware that the American people are gradually discarding many of the common usages of the English System of weights and measures, so as to have greater brevity? The stone, equivalent to 14 pounds; the hundred weight, quarter and ton. The capacity of American railroad cars is given almost universally in *pounds* and not tons. If emasculation has set in, why not turn over the old for that which is new to us but *not untried*, which is not a failure, but a success? If the yard, foot, inch and ordinary parts of an inch, ranging ½, ¼, ⅛, 1-16, 1-32, 1-64, 1-100, 1-1000 and 1-10000, are so superior to an interchangeable one of uniform values for multiples and submultiples based on *ten*, why not discard our convenient decimal money system that is based on ten and use the pounds, shillings and pence again?

The worst of all is that we have no common basis for the units of weight, length and capacity—but pounds are multiples of ounces (16); feet of inches (12), and gallons of quarts (4).

Undoubtedly some inconvenience and confusion will result in making the change, but is it any more, relatively, than was involved in the recent change of the *entire* system of street names and house numbers, established by official enactments at Cleveland, Ohio, a city of 500,000 inhabitants? The future gain compensates for the necessary readjustments incidental to the transition.

N. S. A.

A NECESSITY INSTEAD OF A LUXURY.

THE INLAND PRINTER is a necessity instead of a luxury.—James H. Hallock, Imlay City, Michigan.

Written for THE INLAND PRINTER.

PHYSICAL CHARACTERISTICS OF RELIEF ENGRAVINGS, ESPECIALLY RELATING TO HALF-TONES.

NO. IV.—BY N. S. AMSTUTZ.*



IN the course of these researches it has been found that the work has been extended and made more laborious than ordinarily necessary, because there were no tables giving data as to screen pitches, unit areas, diagonal pitches, dot diameters, dot

areas, white and black dots relation to unit area, etc., available.

Out of these disadvantages have grown Tables G and H. These will enable any one to make various comparisons without having recourse to many detailed calculations, and in some instances without making any whatever. They are arranged to save the time of the busy worker who turns out large quantities of work per day and who is deserving of far more recognition than is usually accorded him.

When one considers the minutiae of the various dimensions that he almost unconsciously deals in,

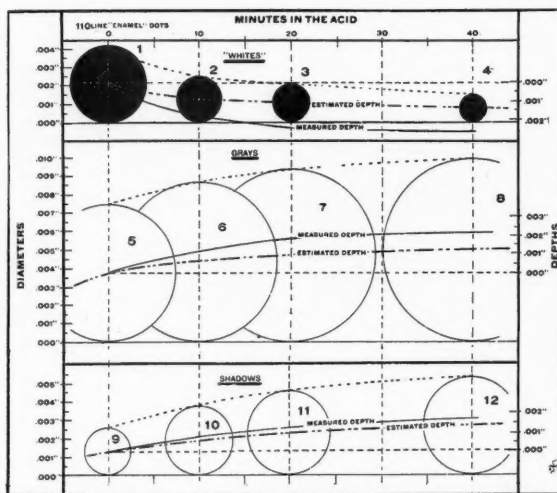


FIG. 16.—Showing change in size and depths of 110-line engravings, Figs 9, 10 and 11, tabulated in Table F and shown in Fig. 17.

the degree of perfection attained is almost marvelous. It is thought, however, that the processman will find the tables more serviceable if some explanation is given as to the origin of the various values, as well as a concise definition of what they mean. In Table G are given the following values for various lines per inch:

LINES PER LINEAL UNIT (No. 1 of Fig. 18.)—This has to do wholly with the number of lines found on the screen or the engraving within any given *standard* dimension. Among English-speaking peoples, the number of separate lines in

* Member of the Royal Photographic Society and Society of Arts, London; and Associate Member American Institute of Electrical Engineers.

each *inch* is used. The other unit is the *centimeter* of the metric system of measures. (There are 2.54 centimeters in one inch and .3937 of an inch in each centimeter.) The lines per lineal unit, as ordinarily used, are expressed as *lines per inch*, and they consist of the numbers given in Table G. The principal standard screen numbers are listed. Of course, special rulings are frequently made, and it should be stated that these researches and the tables, diagrams and illustra-

65 lines per inch, the value would be 1-65 of an inch, approximately 1-25.6 of a centimeter. In the tables the value is expressed in decimal parts of an inch, as .01538, which is the equivalent of 1-65 inch. This value is found by dividing 1 by the lines per inch, which, in technical language, means that the decimal equivalent of such a fraction is the reciprocal of the number of lines per inch. It is necessary to know this in order to calculate unit area and therefrom determine the

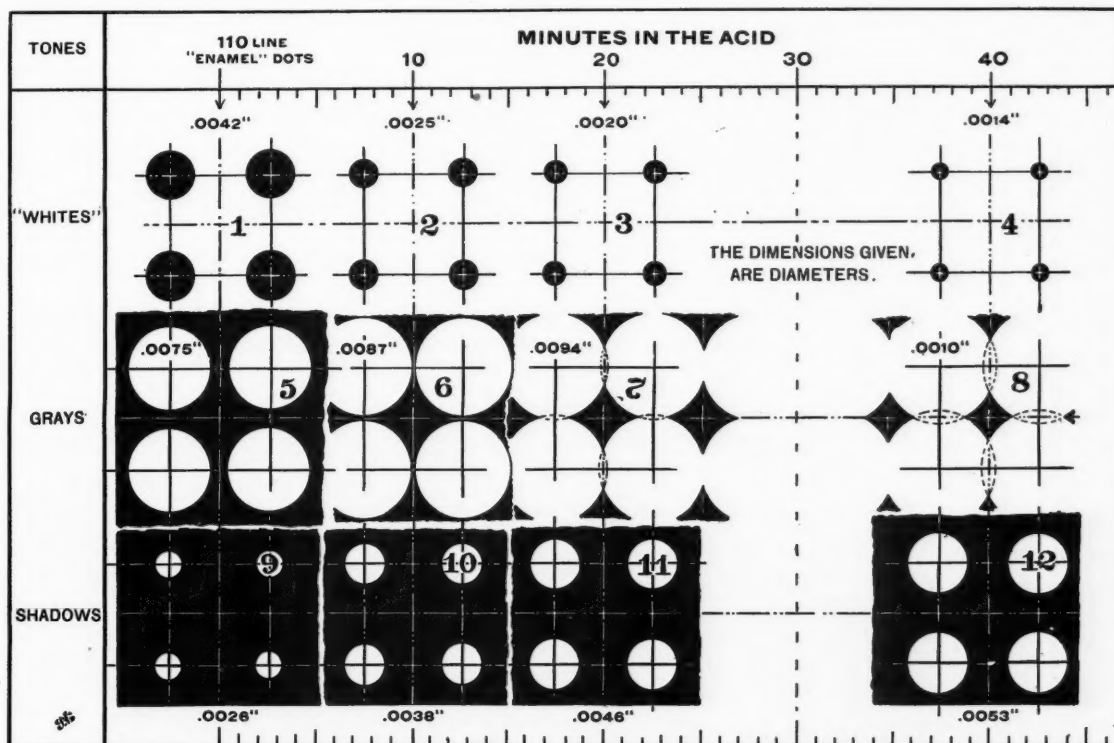


FIG. 17.—Showing change in size of 110-line dots of Figures 9, 10 and 11, and Table F, and Fig. 16.

tions used are all based on screens in which the two sets of lines are displaced 90°; other angled screens require special investigations. If there is any question as to the lines per inch of any half-tone print, they can be easily counted by simply placing a rule over it and, with the aid of an eye-glass, counting the lines in a quarter of an inch, which, multiplied by four, will give the number per inch. Should the basis of comparison be $\frac{1}{8}$ or 1-10 inch, the number should be multiplied by 8 or 10. A very convenient half-tone screen indicator is published by the Suffolk Engraving & Electrotyping Company, of Boston.

SCREEN PITCH (No. 2 of Fig. 18).—The distance from the center of one line to the center of an adjacent one is known as screen pitch. It is expressed as a *fraction* of the unit—either an inch or centimeter. It is the *shortest* distance between the centers of any contiguous dots. At

percentage value of black or white of any given size of dot.

DIAGONAL PITCH (No. 3 of Fig. 18).—This dimension is the distance from the center of one dot to the center of another in a *diagonal* direction. It may also be said to be the *greatest* distance between the centers of any two contiguous dots. It is found by squaring the screen pitch and taking two times this amount and extracting its square root. In short, it is $\sqrt{p^2 + p^2}$ wherein the letter *p* stands for screen pitch. It is useful when one desires to establish the printing quality of the *black* dots (●) in the "whites." In the instance of a 65-line screen, the diagonal pitch becomes $\sqrt{\frac{1}{65} + \frac{1}{65}}$ or $\sqrt{.01538^2 + .01538^2} = \sqrt{.000473} = .02175$. The printing quality may be considered as applying, only to the "whites," as the white dots (○) of the shadows will ordinarily take care of them-

selves. The depth in the shadows can not be accentuated beyond that interrelation which recognizes the depths of the various portions of an engraving as being about proportional to the intensity of the light reflected from the corresponding portion of the subject.

UNIT AREA (No. 5 of Fig. 18).—One of the most important factors in determining the tonal relations of an engraving is that of the inter-related areas of dot faces. This decides largely

less and of little value. Unit area is not the same for all lines, and it is found by squaring the screen pitch, or in other words, by multiplying the screen pitch by itself. Unit area may also be defined as the area of a unit *square* (No. 4 of Fig. 18) whose sides are equal to the screen pitch, and when one side is multiplied by the other one will give the area. Assuming 65 lines per inch, one multiplies 1-65 inch by itself and finds the product (.01538 × .01538) to be .0002365 square inch.

(In the metric system unit area would be $\frac{1}{25.6}$ centimeter × $\frac{1}{25.6}$, or .039 × .039, which gives .00152 square centimeters.) The unit of measurement for the areas is taken as the *one* ten-millionth of a square inch. This is done because the carrying along of the ciphers becomes an unwieldy process, and instead of using .0002365 it is less complex to only use the integers and let 2365 represent unit area at 65 lines per inch. Since the dot areas are also given in terms of the same unit, they may be compared at once.

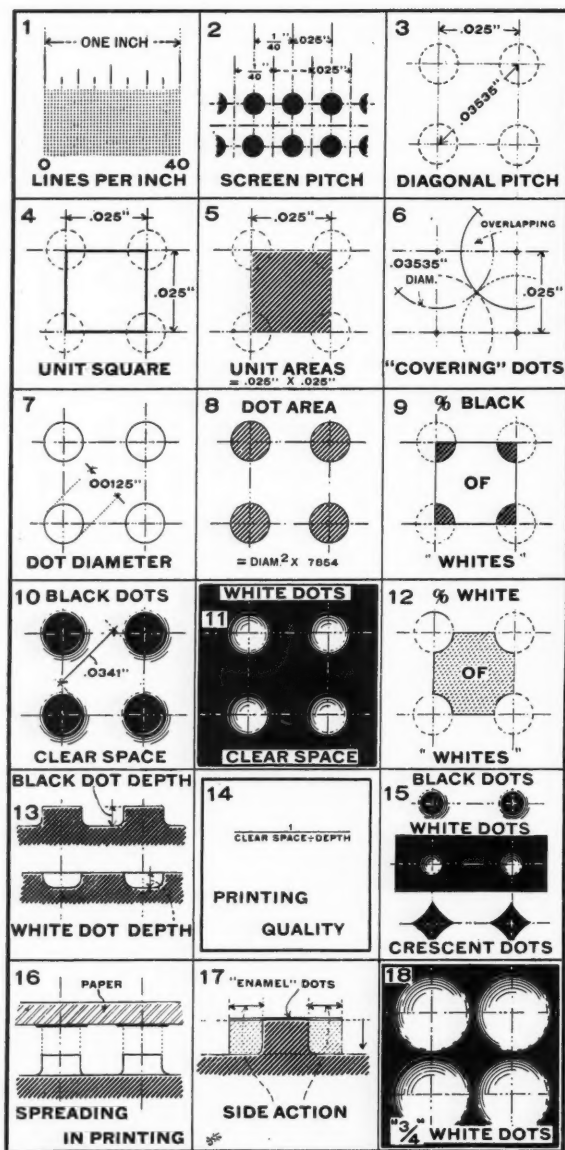
"COVERING" DOT.—This term is an improvised one that indicates the theoretical diameter to which the white dot (o) of the shadows would have to be *increased* to an imaginary size so that four dots would meet at the center of a unit square (shown at 6 of Fig. 18) and thereby entirely *cover* a unit square. The diameter of such a "covering" dot will be the same as the diagonal pitch.

The highest percentage values given in Table H indicate the portion of the combined area of four covering dots that falls within the boundary lines of a unit square. Since a part of the area of each "covering" dot falls over a similar part of another dot, these portions are said to overlap and the amount of the overlapping within a unit square is the excess beyond 100, of the highest percentage values given in Table H.

In Table H, which is combined with Table G, are given the following values for various diameters of dots and different screens, which are arbitrarily selected:

DOT DIAMETER (7 of Fig. 18).—This refers to the diameters of dots, whether white or black, and it is approximately found from inspection of Fig. 7 for 65, 110 and 150 lines per inch at any assumed time in the acid, or by direct examination with a microscope that has a screen reading at least to .002 inch, from which it is not difficult to estimate to .001 inch and to half-thousandths of an inch.* Direct examination guards against the modifying effect of a considerable variation in specific gravity and temperature of the acid. In Table H the dot diameters are given in thousandths and half-thousandths, which are sufficiently close for practical work, as inspection of the changes in per-

* Screens of .001 inch are easily procured.



NOTE.—No. 11: White dot clear spaces are the same as the dot diameters
FIG. 18.—ILLUSTRATED GLOSSARY OF HALF-TONE ENGRAVING TERMS.

how much "color" is present in the different parts of a plate and on it depends the quality of brilliancy, when the relation of dot area to unit area is considered. Without comparing the relation of dot areas to some unit, they are meaning-

centages for half-thousandth variations in diameters will show. For the finest screens the variation should be in quarter-thousandths. If one has a certain area and wishes to know what dot diameter will be its equivalent, it is only required to divide the area by .7854 and extract the square root of the quotient. From the column of dot areas in Table H one can approximate the dot diameter for a given area by selecting the area that comes the

such pioneer work in the production of printing plates from photographs? He was born in 1800 and died in 1877. A talbot would represent the *unit of area*.

PERCENTAGE RELATION (9 and 12 of Fig. 18).—This is the proportion that dot area bears to unit area. It is always a fractional part of the whole and is found by taking the dot area as the numerator and the *unit area* as the denominator of

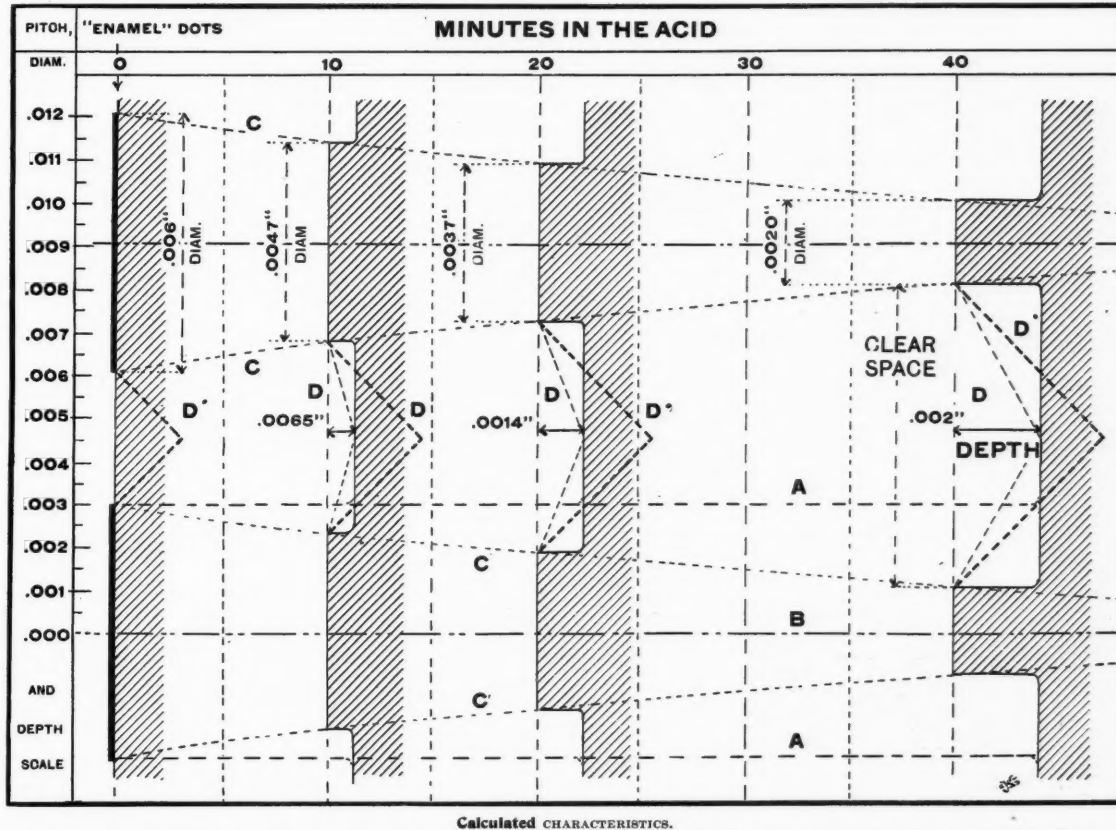


FIG. 19.—Showing conventional form of dots, depth, diameter and side action of 110-line engraving, Fig. 2. Tabulated in Tables A and B. The clear spaces are not diagonal, consequently the relation of depth to clear space is greater than if the diagonal distance was used.

nearest to the one in question and noting the corresponding diameter.

DOT AREA (8 of Fig. 18).—This represents the actual printing surface and it is found by squaring the dot diameter and multiplying by .7854; briefly, $d^2 \times .7854$, in which d represents the diameter. Dot areas of from 5. to 15. are so small as to be practically indiscernible to the naked eye of even an expert. When they represent black dots in the "whites," their presence in a print, well made, is only indicated by a slight overcasting shade, which, to the uninitiated, would appear like "nothing at all." A dot diameter of .0025 inch has an area of 49.—what? It is a long way around to say 49. ten-millionths of a square inch. Why not say 49 talbots, and honor the memory of Fox Talbot, the celebrated Englishman, who did

a fraction. The decimal equivalent of such a fraction is the value given. If the dot in question is a white one (○), the percentage value will be in white; if a black dot (●), it will be in black. The difference between the given percentage and 100 will always give the converse. Suppose a .0025 inch diameter black dot (●), at 65 lines; this shows a percentage of 2.07 of black, if a *black dot* is in question, and under this condition the white would be represented by 100. minus 2.07 or 96.93 per cent. Should a white dot (○) be under comparison, the names "black" and "white" would be transposed.

These percentages are given in Table H for 50, 65, 85, 100, 110, 150 and 200 lines per inch, and one can approximate therefrom the probable values for other lines per inch.

CLEAR SPACE (10 and 11 of Fig. 18).—The space, from which the material has been removed, between the edges of any two adjacent printing surfaces is called a "clear space." It is used, in determining the printing quality of relief engravings, in conjunction with the *depth* to which the material has been removed. For the "whites" it is found by subtracting the dot diameter from the diagonal pitch. This is given in the table for the same screens as the percentages. In the case of a 65-line screen and a .002-inch diameter dot, the

previous observation. Suppose at an examination a certain set of • dots measured .006 inch in diameter on the "enamel" and at another examination they were .004 inch smaller, leaving them but .002 inch diameter; theoretically the depth would be one-half of the whole reduction, or .002 inch. For the black dots this theoretical depth is too small, as shown in Fig. 16, but for the smallest o dots it is approximately accurate. These deductions are based on depth measurements of Figs. 9, 10 and 11, given in Table F. They are also

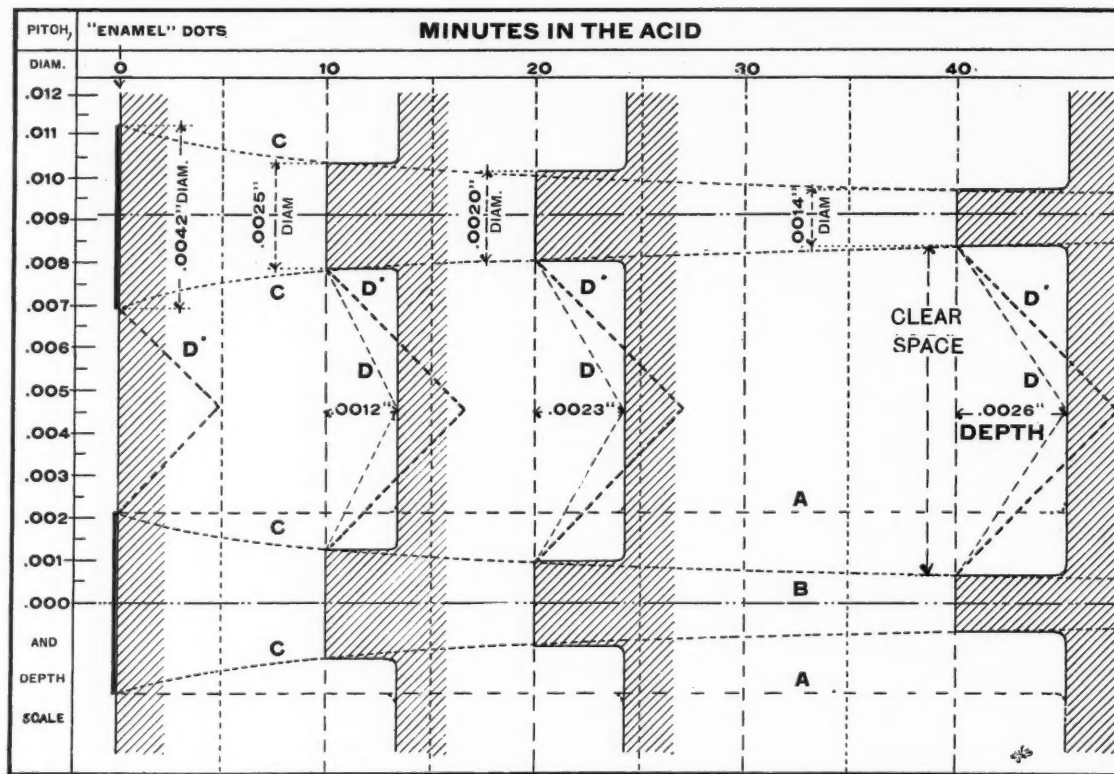


FIG. 20.—Showing conventional form of dots, depth, diameter and side action of 110-line engravings, Figures 9, 10 and 11, from Table F. The clear spaces are not diagonal, consequently the relation of depth to clear space is greater than if the diagonal distance was used.

clear space is .01975 inch. If this is divided by the depth and the quotient is taken as the denominator and 1 as the numerator of a fraction, and the fraction is then expressed decimally, a value indicative of the printing quality will be found. If one should care, as a matter of academic interest, to ascertain this for the white dots of the shadows, one would consider the clear space as identical to the dot diameter and proceed as above. Table I gives the printing quality for various depths and clear spaces.

ETCHING DEPTH.—(13 of Fig. 18).—This is not given in the table, but the theoretical depth based on the side action in flat etching is approximately one-half of the reduction in diameter of a given dot that has taken place subsequent to a

shown in "Pictorial" Graphic Curves of Fig. 16, wherein different conditions of time of etching, dot diameters, dot areas, calculated and measured depths are illustrated; and in Fig. 17 the same data are presented in four-dot sets, numbered from 1 to 12, inclusive, similar to Fig. 16, showing their relation to unit area.

Fig. 18 is an illustrative glossary of the various terms used in the course of these articles, showing eighteen small figures, which it is thought will materially assist the reader.

Fig. 19 shows the *calculated* relation of depth to "clear space" of the data of Table A. The clear space is not in a diagonal direction.

Fig. 20 is based on similar data, but in *measured* values from Table F.

Figs. 21, 22, 23 are three special test engravings at 65, 110 and 150 lines per inch, in order to determine therefrom the depth values of Table K, at 110 lines, the black dot (●) depths, in terms of $\frac{1}{200}$ millimeter, at a magnification of 87 diam-

perature, are vital, and should be noted by the careful etcher.

Messrs. J. A. C. Branfill and William Gamble, of London, have given the relation of stop size and shape to screen distance exhaustive treatment, so

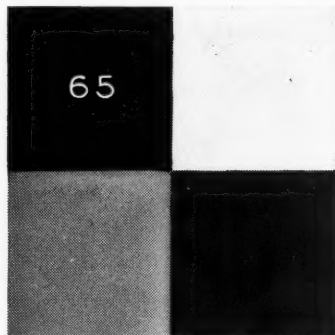


Fig. 21.

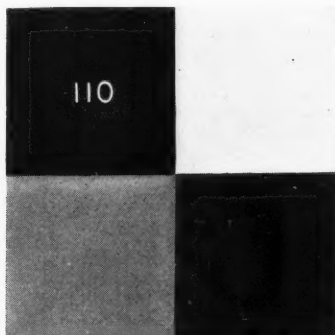


Fig. 22.



Fig. 23.

The numbers indicate the lines per inch. They are ordinary etches. It will be noticed how much nearer to white the coarsest screen runs in comparison to the finest lines, because the smallest black dot (●) bears a smaller relation to unit area and the ratio of the two unit areas to each other is in favor of the coarser lines. The data relating to these special test engravings are given in Table K.

eters, with a series of ten readings gave 15, 14.5, 14, 14, 15, 14.5, 18, 16.5, 17.5 and 14.5, or a mean of 15.35. These are standard etches and the depth is given as an exemplification of ordinary practice from which to judge the interrelation between various lines per inch, the dots and depths.

that this phase of the subject is only touched on in passing.

It is interesting to note the etching rate of Fig. 2, in comparison with those of Figs. 9, 10 and 11, as disclosed by the curves on Fig. 24, especially the difference in rate between the ○ and ● dots.

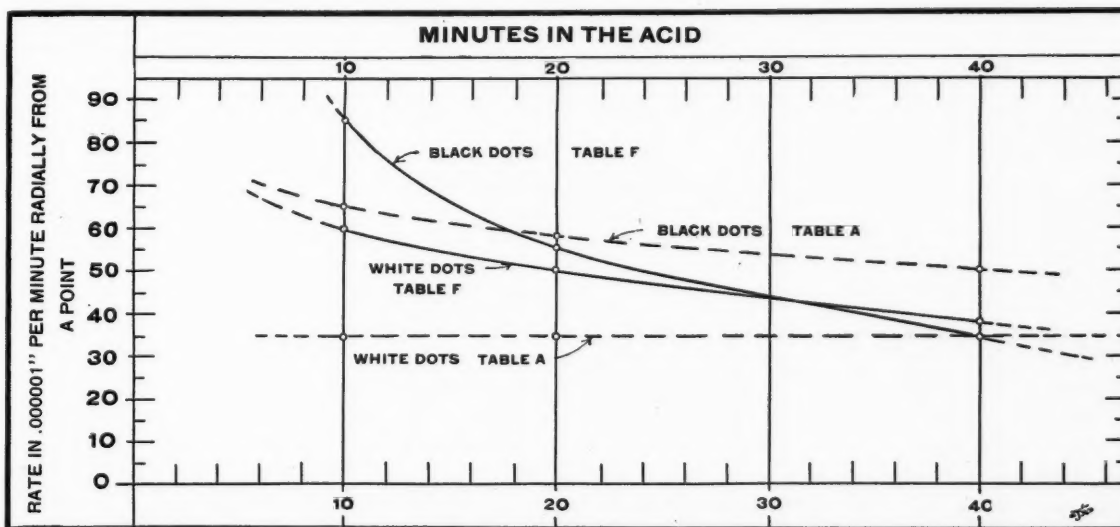


FIG. 24.— Etching rates at 110 lines per inch, from Tables A and F, and Figures 2, 9, 10 and 11.

It might be said, "let well enough alone," but no trial by error process is "well enough," and many failures and anxious moments could be avoided by an intelligent inspection of dot diameters in etching and the use of properly graded stops in the camera. It goes without saying that the degrees Baumé of the acid, as well as its tem-

This figure, with the gray values omitted, is self-explanatory. Table J gives the data of Table F from which Fig. 24 was drawn, the other data are found in Table A.

When the white dots (○) are under consideration, the PRINTING QUALITY (14 of Fig. 18) values given in Table I are for ideal conditions. The unit

TABLE G.—Giving pitches, unit areas and "covering" dots for various lines per inch.

KINDS OF DATA.	Lines per Inch for Tables G and H.					
	50	65	85	100	110	120
Screen pitches .....	.02000 in.	.01538 in.	.01176 in.	.01000 in.	.00910 in.	.00833 in.
Diagonal pitches.....	.02830 in.	.02175 in.	.01663 in.	.01413 in.	.01287 in.	.01178 in.
Unit Areas.....	4000.0 sq. in.	2365.4 sq. in.	1380.6 sq. in.	1000.0 sq. in.	828.0 sq. in.	693.9 sq. in.
Diam. of "Covering" dots .....	.02830 in.	.02175 in.	.01663 in.	.01413 in.	.01287 in.	.01178 in.

TABLE H.—Giving percentages, clear spaces and dot data for above listed lines per inch.

Dot Diameters.	Dot Areas.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.
.0010 in.	7.85	.196	.0273	.33	.02075	.57	.01563	.79	.01313	.95	.01187	1.13	.01078
.0015	17.67	.44	.0268	.75	.02025	1.28	.01513	1.77	.01263	2.13	.01137	2.55	.01028
.0020	31.42	.79	.0263	1.33	.01975	2.27	.01463	3.14	.01213	3.79	.01087	4.57	.00978
.0025	49.09	1.23	.0258	2.07	.01925	3.55	.01413	4.91	.01163	5.92	.01037	7.07	.00928
.0030	70.69	1.76	.0253	2.98	.01875	5.12	.01363	7.07	.01113	8.53	.00987	10.20	.00878
.0035	96.21	2.41	.0248	4.07	.01825	6.97	.01313	9.62	.01063	11.62	.00937	13.88	.00828
.0040	125.66	3.14	.0243	5.31	.01775	9.10	.01263	12.57	.01013	15.18	.00887	18.13	.00778
.0045	159.04	3.98	.0238	6.72	.01725	11.52	.01213	15.90	.00963	19.20	.00837	22.95	.00728
.0050	196.35	4.90	.0233	8.30	.01675	14.20	.01163	19.64	.00913	23.70	.00787	28.30	.00678
.0055	237.58	5.93	.0228	10.02	.01625	17.20	.01113	23.76	.00863	28.69	.00737	34.30	.00628
.0060	282.74	7.06	.0223	11.94	.01575	20.45	.01063	28.27	.00813	34.15	.00687	40.78	.00578
.0065	331.83	8.28	.0218	14.03	.01525	24.0	.01013	33.18	.00763	40.05	.00637	47.80	.00528
.0070	384.85	9.62	.0213	16.28	.01475	27.85	.00963	38.49	.00713	46.45	.00587	55.50	.00478
.0075	441.79	11.05	.0208	18.68	.01425	32.0	.00913	44.18	.00663	53.30	.00537	63.70	.00428
.0080	502.66	12.56	.0203	21.25	.01375	36.4	.00863	50.27	.00613	61.0	.00487	72.50	.00378
.00833a	544.98											78.60a	.00345
.0085	567.45	14.18	.0198	23.98	.01325	41.1	.00813	56.75	.00563	68.5	.00437	82.	.00328
.0090	636.17	15.92	.0193	26.89	.01275	46.1	.00763	63.62	.00513	76.9	.00387	92.	.00278
.0091a	650.04									78.5a	.00377		
.0095	708.82	17.73	.0188	29.90	.01225	51.3	.00713	70.88	.00463	86.	.00337	102.	.00228
.0100a	785.41	19.64	.0183	33.20	.01175	56.8	.00663	78.54a	.00413	95.	.00287	113.	.00178
.0105	865.90	21.65	.0178	36.58	.01125	62.6	.00613	87.	.00363	105.	.00237	125.	.00128
.0110	950.33	23.79	.0173	40.18	.01075	68.9	.00563	95.	.00313	115.	.00187	137.	.00078
.0115	1038.69	25.95	.0168	43.90	.01025	75.1	.00513	104.	.00263	125.	.00137	150.	.00028
.01176a	1086.20					78.7a	.00487						
b .01178	1089.89											156.	.00000
.0120	1130.97	28.3	.0163	47.75	.00975	82.	.00463	113.	.00213	137.	.00087		
.0125	1227.19	30.7	.0158	51.88	.00925	89.	.00413	123.	.00163	148.	.00037		
b .01287	1290.92									156.	.00000		
.0130	1327.32	33.2	.0153	56.10	.00875	96.	.00363	133.	.00113				
.0135	1431.14	35.8	.0148	60.50	.00825	104.	.00313	143.	.00063				
.0140	1539.38	38.45	.0143	65.00	.00775	112.	.00263	154.	.00013				
b .01413	1568.11							157.	.00000				
.0145	1651.30	41.3	.0138	69.80	.00725	120.	.00213						
.0150	1767.15	44.15	.0133	74.62	.00675	128.	.00163						
.01538a	1867.81				78.9a	.00637							
.0155	1886.92	47.15	.0128	80.	.00625	137.	.00113						
.0160	2010.62	50.1	.0123	85.	.00575	146.	.00063						
.0165	2138.25	53.45	.0118	90.	.00525	155.	.00013						
b .01663	2172.08					157.	.00000						
.0170	2269.80	56.7	.0113	96.	.00475								
.0175	2405.28	60.15	.0108	102.	.00425								
.0180	2544.69	63.6	.0103	108.	.00375								
.0185	2688.03	67.2	.0098	114.	.00325								
.0190	2835.29	70.9	.0093	120.	.00275								
.0195	2986.48	74.6	.0088	126.	.00225								
.0200a	3141.59	78.5a	.0083	133.	.00175								
.0205	3300.64	83.	.0078	140.	.00125								
.0210	3463.61	87.	.0073	146.	.00075								
.0215	3630.50	91.	.0068	154.	.00025								
b .02175	3715.44			157.	.00000								
.0220	3801.33	95.	.0063										
.0225	3976.08	99.	.0058										
.0230	4154.76	104.	.0053										
.0235	4337.36	109.	.0048										
.0240	4523.89	113.	.0043										
.0245	4714.35	118.	.0038										
.0250	4908.74	123.	.0033										
.0255	5107.05	128.	.0028										
.0260	5309.29	131.	.0023										
.0265	5515.46	138.	.0018										
.0270	5725.55	143.	.0013										
.0275	5939.57	149.	.0008										
.0280	6157.52	154.	.0003										
b .02830	6290.18	157.	.0000										

* = CLEAR SPACES of BLACK DOTS only. CLEAR SPACES of WHITE DOTS are the same as the dot diameters.

a = Region of "Three-quarter" white, or birth of Crescent dots.

b = Diameters of "Covering" dots.

The illustrated definitions of the names used, shown in Fig. 18, do not show square, diamond or elliptical shaped dots which are produced by special diaphragms.

The percentages above the "a" region are only approximate. The values are dissipated in "overlapping" and the HIGHEST values indicate the whole area of the overlapping effect, to the extent that they exceed 100.

TABLE G.—Giving pitches, unit areas and "covering" dots for various lines per inch — *Continued.*

KINDS OF DATA.	Lines per inch for Tables G and H.					
	133	150	175	200	250	300
Screen pitches .....	.00752 in.	.00666 in.	.00571 in.	.00500 in.	.00400 in.	.00333 in.
Diagonal pitches.....	.01064 in.	.00942 in.	.00808 in.	.00707 in.	.00565 in.	.00471 in.
Unit areas	565.5 sq. in.	443.5 sq. in.	326.0 sq. in.	250.0 sq. in.	160.0 sq. in.	110.9 sq. in.
Diam. of "Covering" dots....	.01064 in.	.00942 in.	.00808 in.	.00707 in.	.00565 in.	.00471 in.

TABLE H.—Giving percentages, clear spaces and dot data for above lines per inch — *Continued.*

Dot Diameters.	Dot Areas.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.
.0010 in.	7.85	1.39	.00964	1.77	.00842	2.4	.00708	3.14	.00607	4.91	.00465	7.8	.00371
.0015	17.67	3.13	.00914	3.98	.00792	5.42	.00658	7.07	.00557	11.04	.00415	15.93	.00321
.0020	31.42	5.56	.00864	7.08	.00742	9.65	.00608	12.56	.00507	19.65	.00365	28.32	.00271
.0025	49.09	8.65	.00814	11.06	.00692	15.09	.00558	19.62	.00457	36.8	.00315	44.25	.00221
.0030	70.69	12.52	.00764	15.95	.00642	21.7	.00508	28.26	.00407	44.2	.00265	63.7	.00171
.0033a	85.53	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	77.1a	.00141
.0035	96.21	17.05	.00714	21.7	.00592	29.52	.00458	38.5	.00357	60.1	.00215	87.	.00121
.0040a	125.66	22.25	.00664	28.32	.00542	38.55	.00408	50.15	.00307	78.6a	.00165	112.	.00071
.0045	159.04	28.15	.00614	35.7	.00492	48.8	.00358	63.6	.00257	99.	.00115	144.	.00021
b .00472	174.97	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	157.	.00000
.0050a	196.35	34.75	.00564	44.25	.00442	60.2	.00308	78.5a	.00207	123.	.00065	.....	.....
.0055	237.58	41.8	.00514	53.6	.00392	72.9	.00258	95.	.00157	149.	.00015	.....	.....
b .00565	250.72	.....	.....	.....	.....	.....	.....	.....	.....	.....	.00000	.....	.....
.00571a	256.07	.....	.....	.....	.....	78.6a	.00237	.....	.....	.....	.....	.....	.....
.0060	282.74	50.0	.00464	63.7	.00342	86.	.00208	113.	.00107	.....	.....	.....	.....
.0065	331.83	58.65	.00414	74.7	.00292	102.	.00158	133.	.00057	.....	.....	.....	.....
.00666a	348.37	.....	.....	78.5a	.00276	.....	.....	.....	.....	.....	.....	.....	.....
.0070	384.85	68.05	.00364	87.	.00242	118.	.00108	154.	.00007	.....	.....	.....	.....
b .00707	392.58	.....	.....	.....	.....	.....	.....	157.	.00000	.....	.....	.....	.....
.0075	441.79	78.18	.00314	99.	.00192	136.	.00058	.....	.....	.....	.....	.....	.....
.00752a	444.15	78.9a	.00312	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.0080	502.66	89.9	.00264	113.	.00142	154.	.00008	.....	.....	.....	.....	.....	.....
b .00808	512.76	.....	.....	.....	.....	157.	.00000	.....	.....	.....	.....	.....	.....
.0085	567.45	100.	.00214	127.	.00092	.....	.....	.....	.....	.....	.....	.....	.....
.0090	636.17	113.	.00164	144.	.00042	.....	.....	.....	.....	.....	.....	.....	.....
b .00942	696.93	.....	.....	157.	.00000	.....	.....	.....	.....	.....	.....	.....	.....
.0095	708.82	125.	.00114	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.0100	785.41	138.	.00064	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.0105	865.9	153.	.00014	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b .01064	889.16	157.	.00000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* = Clear spaces of black dots only. White-dot clear spaces are the same as the dot diameters.

a = Region of "Three-quarter" whites, or birth of "Crescent" dots.

b = Diameters of "Covering" dots.

"1" is taken as indicating when the clear spaces are the same as the depth. This value, if the ink transference from the rollers to the printing face was theoretically perfect, would continue to represent printing quality, even though the dimensions were much reduced below those ordinarily considered as having reached the *practical* limits of minuteness.

Theoretical printing quality values require a modification which may be termed the press constant, which will vary with the ink, hygroscopic, temperature and paper conditions. The values given in Table K show a better printing quality for the white dots (○) than for the black ones (●), because the depth, in proportion to clear space, is *greater* in the case of the former than the latter; this explains why the white dots (○) will persist in printing in backgrounds, etc., when the customer may want a dead black, which can not, however, be attained in proper harmony without remaking the engraving or burnishing down the size and depth of the undesired dots.

If the printing quality of the white dots (○) was not better than that of the black ones (●) the minuteness of their dimensions would certainly not admit of any printing value at all. When one deals with diameters of .0026 inch and depths of only .0012 inch at the points where the largest masses of ink are dealt with, the results are little short of marvelous and the engraving and allied printing arts take on all the features of *precision* engineering.

It ordinarily appears on the face of things that the "whites" of a 65-line engraving should have a better printing quality than those of a 150-line etching. If the quality of the latter was *less* than the former it would not print at all. The reason any of the fine line engravings print is because of their superior printing quality.

Superficially considered, printing quality is entirely a matter of *depth of etch*; a little analysis will dispel this idea. Suppose a given etch of .005 inch depth and a clear space of .010 inch, the tendency for the ink rollers and paper to "dip in"

TABLE I.—Showing relation of clear spaces to depth or printing quality.

Depths.	CLEAR SPACES.																			
	.001"	.002"	.003"	.004"	.005"	.006"	.007"	.008"	.009"	.010"	.011"	.012"	.013"	.014"	.015"	.016"	.017"	.018"	.019"	.020"
.0005"	.50	.25	.16	.125	.100	.083	.071	.063	.055	.050	.045	.042	.038	.036	.033	.031	.029	.028	.026	.025
.0010	1.0	.50	.33	.25	.20	.17	.14	.13	.11	.100	.09	.08	.077	.071	.067	.063	.059	.056	.053	.050
.0015	1.5	.75	.50	.38	.30	.25	.21	.18	.17	.15	.14	.13	.12	.11	.100	.094	.088	.083	.079	.075
.0020	2.0	1.00	.66	.50	.40	.33	.29	.25	.22	.20	.18	.17	.15	.14	.13	.125	.12	.110	.105	.100
.0025	2.5	1.25	.83	.63	.50	.42	.36	.31	.28	.25	.23	.21	.19	.18	.17	.16	.15	.14	.13	.125
.0030	3.0	1.50	1.00	.75	.60	.50	.43	.38	.33	.30	.27	.25	.23	.21	.20	.19	.18	.17	.16	.15
.0035	3.5	1.75	1.16	.88	.70	.53	.50	.44	.39	.35	.32	.29	.27	.25	.23	.22	.21	.19	.18	.17
.0040	4.0	2.00	1.33	1.00	.80	.67	.57	.50	.44	.40	.36	.33	.31	.29	.27	.25	.24	.22	.21	.20
.0045	4.5	2.25	1.50	1.10	.90	.75	.64	.56	.50	.45	.41	.38	.35	.32	.30	.28	.26	.25	.24	.23
.0050	5.0	2.50	1.66	1.25	1.00	.83	.72	.63	.55	.50	.45	.42	.38	.36	.33	.31	.29	.28	.26	.25
.0055	5.5	2.75	1.83	1.38	1.10	.93	.79	.68	.61	.55	.50	.46	.42	.39	.37	.34	.32	.31	.29	.28
.0060	6.0	3.00	2.00	1.50	1.20	1.00	.86	.75	.67	.60	.55	.50	.46	.43	.40	.38	.35	.33	.32	.30
.0065	6.5	3.25	2.16	1.60	1.30	1.08	.93	.81	.72	.65	.59	.54	.50	.46	.43	.41	.38	.36	.34	.33
.0070	7.0	3.50	2.33	1.75	1.40	1.11	1.00	.88	.78	.70	.64	.58	.54	.50	.47	.44	.41	.39	.37	.35
.0075	7.5	3.75	2.50	1.88	1.50	1.25	1.07	.99	.83	.75	.68	.63	.58	.54	.50	.47	.45	.42	.39	.38
.0080	8.0	4.00	2.66	2.00	1.60	1.33	1.14	1.00	.89	.80	.73	.67	.62	.57	.53	.50	.47	.44	.42	.40
.0085	8.5	4.25	2.83	2.13	1.70	1.42	1.21	1.06	.95	.85	.77	.71	.65	.61	.56	.53	.50	.47	.45	.43
.0090	9.0	4.50	3.00	2.25	1.80	1.50	1.28	1.12	1.00	.90	.82	.75	.69	.64	.60	.56	.53	.50	.47	.45
.0095	9.5	4.75	3.16	2.38	1.90	1.57	1.35	1.17	1.06	.95	.86	.79	.73	.68	.63	.59	.56	.53	.50	.48
.0100	10.0	5.00	3.33	2.50	2.00	1.67	1.43	1.25	1.11	1.00	.91	.83	.77	.71	.67	.63	.59	.55	.53	.50

TABLE J.—Showing Etching Rates of Figures 9, 10 and 11 and Table F @ 110 lines per Inch.

FOR SMALLEST BLACK (●) DOTS OF "WHITES."				
DATA.	"Enamel."	10 Minutes.	20 Minutes.	40 Minutes.
Diameter . . . . .	.0042 in.	.0025 in.	.0020 in.	.0014 in.
Reduction of diameter . . . . .		.0017 in.	.0022 in.	.0028 in.
Rate per minute . . . . .		.000085 in.	.000055 in.	.000035 in.
Measured depth . . . . .		.0017 in.	.0023 in.	.0026 in.
Estimated depth . . . . .		.00085 in.	.0011 in.	.0014 in.
FOR WHITE (○) DOTS OF GRAYS.				
Diameter . . . . .	.0075 in.	.0087 in.	.0094 in.*	.0100 in.*
Increase of diameter . . . . .		.0012 in.	.0019 in.	.0025 in.
Rate per minute . . . . .		.00006 in.	.000048 in.	.000031 in.
Measured depth . . . . .		.0012 in.	.0018 in.	.0022 in.
Estimated depth . . . . .		.0006 in.	.00096 in.	.00124 in.
FOR SMALLEST WHITE (○) DOTS OF SHADOWS.				
Diameter . . . . .	.0026 in.	.0038 in.	.0046 in.	.0053 in.
Increase of diameter . . . . .		.0012 in.	.0020 in.	.0027 in.
Rate per minute . . . . .		.00006 in.	.00005 in.	.000034 in.
Measured depth . . . . .		.0008 in.	.0013 in.	.0017 in.
Estimated depth . . . . .		.0006 in.	.0010 in.	.00128 in.

* Modified by "crescent" shaped black dots which originate at the time the white dots have been increased to a diameter that is equal to the screen pitch; in this case, @ 110 lines, to .0091 inch.

TABLE K.—Data of Special Test Engravings, Figures 21, 22 and 23, for Depths, Diameters and Printing Quality, at Different Lines per Inch, Under Ordinary Etching Conditions.

KINDS OF DATA.	LINES PER INCH.								
	65 lines.			110 lines.			150 lines.		
	"Whites"	Grays	Shadows	"Whites"	Grays	Shadows	"Whites"	Grays	Shadows
	●	○	○	●	○	○	●	○	○
Diameters† . . . . .	.0026"	.0119"	.0058"	.0018"	.0090"	.0050"	.0013"	.0065"	.0026"
Areas, ○ or ●	53.09●	1112.21	264.21	25.46●	636.17	196.35	13.27●	331.83	53.09
Per cent white	97.76	47.	11.18	96.92	76.9	23.7	97.02	74.9	11.97
Per cent black	2.24	53.	88.82	3.08	2.31	76.3	2.98	25.1	88.03
Measured depths† . . . . .	.0038"	.0027"	.0020"	.0030"	.0026"	.0018"	.0020"	.0017"	.0012"
Clear spaces* . . . . .	.0192"	.0119"	.0058"	.0111"	.0090"	.0050"	.0081"	.0065"	.0026"
Printing quality . . . . .	.198	.267	.290	.270	.289	.360	.247	.261	.461
Screen pitches . . . . .		.01538 in.			.00910 in.			.00666 in.	
Diagonal pitches . . . . .		.02175 in.			.01287 in.			.00942 in.	
Unit areas		2365.4 sq. in.			828.0 sq. in.			443.5 sq. in.	
"Covering" dots . . . . .		.02175 in. diam.			.01287 in. diam.			.00942 in. diam.	

* Clear spaces of white dots are of the same dimension as their dot diameters.

● = Smallest black dots in "whites." ○ = White dots in grays. ○ = Smallest white dots in shadows.

† Values verified with Bausch & Lomb Optical Co.'s DD8 Microscope, under a magnification of 87 diameters, with a 2½ objective and a 1-inch ocular. The depth values given are the mean of ten separate readings from different portions of the "whites," grays and shadows.

would be one-half as great, approximately, as when the clear space was increased to .020 inch; so then the narrower the space, in relation to depth, the better is the printing quality within the practical limits of ink viscosity, spreading action of impression, solidity and surface of the paper.

With viscous or "long" ink the practical limit is reached long before the theoretical limit is approached. With ordinary "short" ink the white dots begin to bridge over or fill up when they have a diameter of .001 inch, but on account of the spreading action (16 of Fig. 18) of the ink in taking an impression on the press, an engraved dot of .0015 inch diameter will show signs of closing up in the print.

With a highly viscous ink of the double-tone order, white dots of from .002 to .0025 inch diameter show the filling action of the ink. It would be interesting to note whether an arbitrary dot or depression .002 inch diameter and a depth *greater* than an etched dot, produced by *mechanical* means, would show the same tendency to fill up as does the etched dot under the *same* conditions of inking, impression and paper.

Table I clearly shows the various clear spaces by stages of .001 inch and depths by changes of .0005 inch. The figures at the intersections are indicative of the printing quality; they are deduced from the formula shown in square 14 of Fig. 18.

The formation of crescent dots (15 of Fig. 18) and the activity of second or periodic acceleration is controllable to a large extent by using a diaphragm to produce square dots in the middle and "three-quarter" tones; also by arbitrarily causing the dots in *one direction* to remain linked or joined (sausage type) while disconnected in the other direction.

The "V" lines of Figs. 19 and 20 show to what angles of grooves wood-engraving practice would have to be modified to conform to the acid-etched depths and clear spaces of half-tones, by light dotted lines, D. The heavy dotted lines, D¹, show what the depths would be under wood-engraving practice if a 90° (included angle) graver was used with the same clear spaces as shown for the acid conditions.

The element of uncertainty found in etching practice is largely due to a lack of precautions, which, if taken, would avoid the "making over" of many pieces of work, give the etcher greater control and confidence over, and in, his medium, and thereby eliminate the unsatisfactory quibbling between the clerical and practical departments of the business. What the operator and etcher require to know is, that *specific* causes under *like* conditions produce *identical* results. No amount of specious reasoning will alter this inexorable

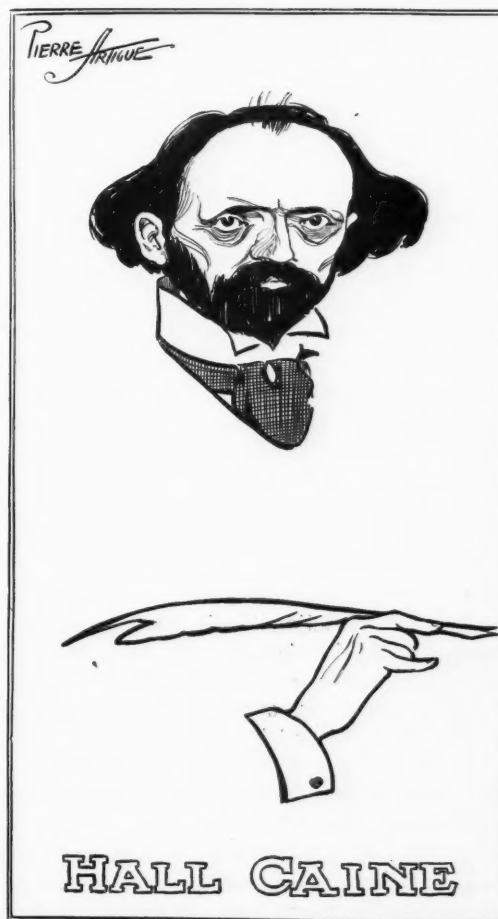
law and the sooner its *scope* is learned the better for the trade and all concerned.

It now remains to more exhaustively investigate the law of second or periodic acceleration, and it is hoped to also present numerous photo-microscopic enlargements produced in a novel manner so as to admit of easy and definite comparisons. The relation of half-tone and wood engraving printing qualities will also be made the subject of further treatment, as well as the co-relation of mechanical engraving methods as applied to specialized uses. The relation of specific gravity of the etching medium to temperature and the effect on *etching* rates will also be taken up in due time.

(To be continued.)

FEELS THE LOSS.

For many years I have been getting this instructive, artistic and highly esteemed journal through one of our local dealers. He went out of business last summer, and since then I have been realizing, in a cumulative way, that something is missing about the office; that I am growing stale and rusty as to what is going on in the great world of printerdom. I hope you will appreciate the situation and let the back numbers come quickly and in a bunch.—
W. A. Fiske, Portsmouth, Virginia.



Written for THE INLAND PRINTER.

COLOR PHOTOGRAPHY.

BY A. SPECTROS.



THE advancements made in color photography have been marked and ere long shall we have such a plate as will enable the amateur to simply make his exposure, develop the plate, and presto! an image in natural colors?

The Lippmann (Paris) process is a bona fide single-exposure development method, but is too complex for the tyro. It shows colors on account of the thinness of a series of developed strata occurring *within* the thickness of the gelatin film of the dry plate.

Mr. Senior, of the Chelsea Polytechnic, London, has made some marvelous micro-photos showing a Lippmann dry plate film in *section* so as to disclose the different strata of developed silver. The various strata, selectively, on account of interference, show the natural colors when the plate is viewed at an angle or through a viewing prism; it does not lend itself to duplication.

The process known as the McDonough-Joly depends on the use of a lined color screen placed in front of the sensitive plate. This screen is ruled in parallel lines of three colors — red, greenish yellow, and blue — which are duplicated entirely across the plate in their three-in-a-group order. These color lines act the same as ordinary color filters in the now well-known three-plate, three-exposure method which uses three separate color filters, each of which covers the *entire* area of a plate.

This process involves the making of an exposure, developing the plate into a negative and making a positive therefrom. Over the positive a viewing screen, also ruled in groups of three colored lines, is fastened. The developed bands of silver of the positive will modify or shut off one or more of the lines, according to the color value of the original, so that in looking at the bound screen and positive by transmitted light one is able to observe very good color intensities and gradations. The difficulty of the process lies in the necessity of using a color screen attached to *each* positive and the difficulty of holding the lines of the positive throughout the chemical stages so as to come, when dry, in register with those of the screen. A printing scheme was proposed and some considerable progress made, but the difficulties of register and the degraded color values of the prints — causing them to lack all brilliancy — were fatal to its practical success.

The optically superimposed image process of F. E. Ives renders beautiful color values and is a successful method; it, however, requires three

separate color filters and three separate plates in its manipulation.

A foreign process of Herr Szczepanik, a Galician, which was proposed a few years ago, contemplated the use of three superimposed films of color. The effect was produced in a subtractive manner, by causing one or the other color to *fade away* more or less under the action of the light through a color value positive.

The Sampo-Brasseur system is similar to the McDonough-Joly process, excepting that the former does not show a *lined* result in the positives, because during the time they are printing, an opaque and transparent lined screen, held in register with the negative, is gradually shifted the width of a single transparent line, so as to eliminate all screen or line effects from the completed plate, the same procedure being followed for each color; this process produces a final plate similar to the three-exposure methods from a single exposure.

The Powrie-Warner (Chicago) process is a single-exposure development method. The ruled line effect of the McDonough system is retained,



but there are no screens used in the taking or viewing stages, as the "screen" manipulation has to do wholly with the *manufacture* of the plates. This, as well as other "line" processes, depends upon the researches of Duc du Hauron.

The Powrie-Warner method comprises the coating of a plate with bichromatized gelatin and printing under a parallel line screen having opaque lines .002 inch wide and transparent spaces between them .001 inch in width. The opaque part of the screen shields the gelatin and thereby prevents its hardening; this then washes away under the action of hot water. The remaining gelatin is stained a suitable green color, another coating of sensitized gelatin is placed on the plate over the green lines and a second print made under the screen; this time the screen is shifted laterally .001 inch so as to lay bare to the action of the light one-half of the clear space, .002 inch wide, between two green lines, and the print is subjected to a wash in hot water and a red color stain is applied. A third time the plate is coated and printed, this time to expose only the remaining clear space, .001 inch wide, between a green and a red line and then washed and stained in violet-blue dye. After each dyeing the plate is flowed with a thin transparent solution, impervious to moisture.

The plate, with its three sets of lines occurring on different planes, without being *superimposed*, is coated with a panchromatic emulsion and exposed from the glass side and developed in the ordinary manner. The colors will show in reverse order from the object, but on making a positive they will appear in their proper values and relation. As stated, the screen work only has to do with the manufacture of the plates, thus relieving the user from all of the difficulties of the previous methods, in which a single exposure was the desideratum. These plates are being prepared for the market.

The Lumiere (French) starch grain process has recently been described in the *British Journal of Photography* of March 9, 1906, from which we make extracts. It is an interesting single-exposure development method that utilizes starch grains of such diminutive size as to entitle them to be called "microscopic." They are twenty thousandths of a millimeter in diameter. As a millimeter is $\frac{1}{25.4}$ inch the size of the starch grain in inches becomes a very small amount, or $\frac{20}{1000}$ of $\frac{1}{25.4}$ inch, which equals $\frac{1}{1270}$ inch, or the equivalent of 1270 lines per inch in ordinary parlance. This corresponds to a little more than $\frac{1}{12}$ of the values of plane diffraction gratings, such as are used in the Tallent Spectroscopic Cameras — replicas of Rowland gratings — at 14,500 lines per inch. The Lumiere grain is so formed as to have no *unoccupied* spaces between grains, and the

grains do not overlap. The grains of one color order must leave room between them for the occupancy of grains of other color orders, so that the distance between grains is equal to twice the diameter of a single grain: hence the pitch between those of one order will be equivalent to 423 lines



per inch, but as between the adjacent grains of separate orders the equivalent will be 1,270 lines per inch.

For comparison it is interesting to note that the wave length of red is about $\frac{1}{40000}$ inch and of blue $\frac{1}{60000}$ inch.

If on the surface of a sheet of glass, and in the form of a thin *single* film, a collection of minute grains or microscopic elements, transparent and colored reddish orange, green and violet are spread, we shall find, if the spectral absorption of these elements is correct, and if they are in correct proportions, and *not superposed*, that the film thus obtained, when examined by transmitted light, will not appear colored, but it will only absorb a fraction of the transmitted light.

The luminous rays traversing the colored

starch grains, which become fundamental screens, orange, green and violet, are reconstructed and form white light if the sum of their surfaces for each color and the intensity of the coloration of the grains exists in proper proportions. The thin, granular trichromatic film thus formed is subsequently coated with a panchromatic emulsion.

If, now, such a plate be submitted to the action of an image from a colored subject, taking the precaution to expose it through the back, the light rays traversing the fundamental screens will, according to their own color and the color of the screens they pass through, suffer a variable absorption or will be variably suppressed. We thus have an automatic selection by the starch grains which enables us to obtain colored images after development and fixation, the colors being complementary to those of the original.

The complementary or negative image is formed as follows: Suppose, for example, that a part of an object is colored red, the red rays emanating from it will be suppressed by the green grains of the film, while the violet and orange grains will allow them to pass through and reach the panchromatic film which covers the tri-colored starch particles and, selectively, reduce the silver bromid contained therein. It will, therefore, be acted upon by the only light which is transmitted through the miniature orange and violet "filters." On development, above the green starch granules there will appear no silver discoloration, after fixation, because such portions of the panchromatic film have not been acted on by the suppressed red rays reflected from the object.

In short, development reduces the silver bromid of the film and masks or covers the orange and violet grains, and the green color spots or grains will be visible, because the silver bromid above them has not been reduced. We have, then, in this case, a remnant or part of the plate area colored green, which is complementary to the red rays we have been considering. The same phenomena will occur with the other colors; that is to say, with green light rays from the object the green particles will be masked and the remaining area of the film appear red. In the case of yellow values, violet images will appear, and so on.

A negative comprising these complementary colors will give, on a plate prepared in a similar way, positives that are complementary to the negatives; that is to say, positives which will reproduce the colors of the original.

The difficulties which have been encountered in the application of this method were numerous and considerable, but after laborious researches they have been surmounted, and the Lumiere Company is preparing to place such plates on the market.

It will be interesting to indicate some of the conditions which had to be fulfilled to prove how delicate the problem was.

They had first to find a film formed of miniature or microscopic filters, orange, green and violet. It was necessary that this film should adhere to its support, be very thin, and that the coloration of the grains or particles of which it was to be composed should be specifically determined as regards intensity and exactness of color, and in regard to the number of grains in a given area. The colors must not be unstable, physically and optically; they must not *run*, and there must be no overlapping of the colored grains and no unoccupied spaces. The film, finally, needed to be covered with a varnish that had the same index of refraction as the grains.

It was necessary that the sensitive panchromatic film should be orthochromatized — so that there should be a true rendering of colors — and that the orthochromatism should bear a relation to the nature of the emulsion used and the color values of the granular "filters." The film produced by the emulsion must be of such a nature as to prevent light diffusion, and all the manipulations, development and exposure required harmonizing with these fundamentals.

The brief enumeration of one condition incident to the development of the process will serve to show how much care and what precautions were necessary. First, potato starch had to be separated by special instruments, for it is necessary that the grains have a diameter of from fifteen to twenty thousandths of a millimeter. These "miniature screens" or starch grains were divided into three groups and then, respectively, stained reddish orange, green and violet, by the aid of special coloring materials. These three groups of colored "powders" were mixed, after complete desiccation, in proper proportions, so that the composition did not show any residual color. The resulting powder was then brushed on to a sheet of glass coated with a sticky film. Under proper precautions, there was obtained a single film of separately colored grains which touched each other, but without any overlapping.

The grains being circular, the open spaces between more than two grains had to be covered up by a suitable process of dusting thereon an opaque substance so that no white light could be transmitted at these points. This opacity was secured by means of an extremely fine, black powder, for example, of wood charcoal. Thus was formed a multiplicity of screens on every unit area of surface. There are 2,890 of these small grains, forming unit screens, of orange, green and violet, in a square millimeter, 1,864,500 per square inch. A surface when thus prepared must be protected

by a suitable varnish that has about the same refractive index as the starch grains possess; one that is quite impermeable. On such a surface a thin panchromatic film of sensitive emulsion of silver bromid is placed and when dry the commercial plate is finished.

Exposures are made in the ordinary way in any suitable camera, but in every instance the precaution must be taken to reverse the plate, so that the glass side is toward the lens, which will cause the rays from the lens to first pass through the colored starch grains before they

If it is desired to reestablish the order of the colors of the object on the *negative itself*, by chemical reversal, it is necessary that the silver which was acted on by the light and reduced by the developer be dissolved by any suitable bath. the remaining silver bromid is then developed, producing an image having a variable opacity factor which is complementary to that of the negative which was obtained by the first development. The manipulations are simple and but slightly different from those found in ordinary photography.



CUTTING CLOVER.

reach the sensitive emulsion of the film. It was found necessary to place a special yellow screen in the lens to subdue the high actinism of the violet and blue rays. The absorption of the light, due to its having to traverse *through* the colored starch granules, although a highly sensitive emulsion was used, necessitated an exposure somewhat longer than usual. It is, however, possible to obtain exposures in sunshine in 1-5 second with a lens rapidity of (British) f-3. The negative is developed as in ordinary photography, and if one only fixes the image, there will result, as has been pointed out, a negative, when viewed by transmitted light, that shows the colors that are complementary to those of the object photographed.

The Sanger-Shepherd process and the use of Fitch's films has made lantern-slide color photography very popular in England. Marvelous perfection has been reached in the true rendering of color values. The process consists in printing from a negative made with a color filter on to a bichromated gelatin film, *through* its transparent support or as is technically known "through the back," washing in warm water to remove the unacted gelatin and thereafter staining the remaining portions of gelatin in the color conforming to the filter used in making the negative. One such print is made for the red, one for the yellow, and one for the blue values of the subject. These are then superimposed and bound together to make

superb lantern slides. Three separate exposures are required and three distinct films have to be made and stained, so that the process, while giving splendid results, is yet a considerable distance from a *one-exposure* development method. This process, along with other similar ones mentioned, can be classified as *indirect*, in contradistinction to the Lumiere or Powrie-Warner systems.

As interesting as the previous processes are, they do not cover the entire range of desirable features, as it is difficult to translate the results on to *paper*, as is done with ordinary silver prints. Considerable work along these lines has been accomplished in England by Miss Acland, of Oxford, and Mr. E. J. Wall, of Sidcup.

Generally speaking, these methods consist in tri-printing and superposing the separate prints, by offsets or by direct color applications by way of stains, either in additive or subtractive manipulation.

On March 6, 1906, Mr. E. J. Wall gave a demonstration before the Royal Photographic Society, London, on "Prints in natural colors by the Pinatype process and with superimposed carbon tissues." Among other things, according to the *Photographic Journal*, Mr. Wall said both processes were based on the principle of the subject being split up into three negatives by means of color filters, as in all trichromatic photography, and negatives taken for any printing process could be used for them.

All printing processes were subtractive, and therefore differed from projection processes, which were additive processes. In the latter case one started with a black screen or surface and obtained color by the admixture of red, green and violet lights in proportions that were decided by the transparencies used in the lantern. In printing processes, we started with a white surface and obtained color by subtracting light from it by means of red, yellow and blue pigments. These particular colors were used because it was only by the use of them that the intermediate shades of orange and green could be formed; whereas if red, green and violet were used, dirty browns and greens only would be formed.

The Pinatype process was briefly as follows: Ordinary transparencies were made from the three negatives, and plates coated with gelatin and sensitized with a two per cent solution of a bichromate salt were exposed under these transparencies, the necessary exposure being as usual timed with an actinometer. The plates were washed to free them from the bichromate, and then stained up in the dye baths. The plate exposed under the transparency of the negative taken through the red screen was stained with blue, the plate from the transparency of the negative taken through the

green screen was stained up in red, and that from the violet screen plate was stained up in yellow.

At first the plates took rather long to stain up, but when they were thoroughly stained, gelatinized paper was well soaked in water and then squeegeed to one of the dyed plates and left for ten or fifteen minutes. Then the same piece of paper was squeegeed to another dyed plate, and finally to a third. The lecturer stated that he had found it was best to take the blue impression first, and then superimpose the yellow and then the red; in no case should the yellow be the first pull, as it was extremely difficult to distinguish the image on white paper.

If one color was too faint it could be strengthened by again squeegeeing the print to the necessary dyed plate, or if too strong it could be weakened by squeegeeing down to glass coated with gelatin.

The dyed print plates could be used over and over again, and the process was a very economical one, as the consumption of dyes was comparatively small.

After the print was finished it was advisable to immerse it in a bath of fixative, which hardened the gelatin and rendered the colors more stable, and prints had been exposed to sun and daylight for twelve months with but little change.

Transparencies could also be made by this process, and glass should be coated with a five per cent solution of gelatin sensitized with two per cent of ammonium bichromate, allowing 50 minims to 3¼ inches square; when dry this should be exposed under one of the transparencies, washed, stained up in the corresponding dye, and then again coated with the bichromated gelatin and exposed under another transparency, taking care that the outlines coincided, and then washed and stained up and the operation again repeated for the third dye. An alternative method was to make the yellow image on a separate glass and use as a cover glass.

The superimposed carbon process which the lecturer had used was that of the Rotary Photographic Company, in which the pigmented gelatin was coated on thin celluloid, which was placed in contact with the negative while printing. Abandoning the maker's directions, which the lecturer thought a little too stringent, he used a two per cent solution of ammonium bichromate with ten per cent of alcohol. He sensitized the tissues at night, and allowed them all night to dry.

Exposure was of course, as usual, determined by an actinometer, and, having found that for the blue print, the yellow required one less and the red one number more. Development could be effected by warm water not exceeding 110° F. in temperature. It was necessary to coat paper with an

eight per cent solution of gelatin and then squeegee the yellow print down first; this was most important, as the yellow pigment was opaque; then this should be allowed to dry and the celluloid stripped and then the blue and yellow images treated in exactly the same way.

There were no particular difficulties in the process, and any carbon-worker could at once find himself at home in it.

The exposure was exactly the same for each color. Overexposure gave too much color, underexposure gave too little color.

Mr. Wall had a little member of his family, aged eleven, who had been making prints by the Pinatype process, and he was not sure that some of those he had shown were not made by his daughter. The process simply amounted to exposing correctly, putting the plates in the baths and squeegeeing down on to the paper. With regard to the question as to the process being commercially adopted, one superimposed carbon tissue process had been commercially adopted in Berlin, and the Kaiser, submitting himself for two hours or so, had fifteen or sixteen negatives taken, and expressed himself quite satisfied with the results.

The name Pinatype was undoubtedly suggested from a Greek word meaning, "I drink"; as the gelatin *imbibed* the dyes, absorbed them or "drank" them, the name seems an appropriate one for imbibition processes.

Apropos of this presentation of color photography, the April, 1905, *Bulletin* of the Belgian Photographic Association contained an interesting paper by A. Cullier on the preparation of *colored screens*.

This paper is supplementary to a previous study by the author on orthochromatic plates; it deals with the theory, preparation and use of yellow screens. The introduction treats of the theory of screens and the methods of observation adopted. The properties of an ideal screen which will enable one to reproduce spectrum colors with the relative values of luminosity they present to the eye, are considered the effects of *contrast* screens, which allow the violet rays to pass, and *compensation* screens that suppress or cut them off, of which several illustrations are given. In another section a list of yellow, or greenish-yellow dyes, suitable for screens, is given; this list includes mono and bichromates of potash; auramin, picric acid and picrates, especially the calcium salt; tartrazin (which is highly recommended by Miethe); this dye allows some ultra-violet to pass, which may be remedied by the addition of aesculin; cyclamin, for screens used in connection with orthochromatic plates, giving an exaggerated action of the greenish-yellow rays at wave length 560 Angström

units.* Extinction curves are given for most of the dyes named. Other dyes, less desirable, are also noticed. Finally the method of preparing screens is elaborately presented. The author considers fluid screens as having very little practical use, except for studio work, and he confines himself to dry screens. He gives practical hints on



SUNSET ROCK, TENNESSEE.

Photo by Rollins & Linn, Lookout Mountain, Tennessee.

how to place and mount the screens, the choice of glass, how to coat the glass with dyed gelatin, and in what manner to best do the drying and cementing.

Workers in three-color photography or in the production of three-color transparencies will find much to assist them to a clear understanding of the fundamentals, spectral and pigment colors, screens, their absorptions, methods of staining plates, etc., in the book "Three-Color Photography," by Baron von Hübl, translated into English by Mr. Henry O. Klein, of London.

CAN'T FOOL HIM AGAIN.

I was fooled into subscribing for another printer's journal some time ago, but there is none that can come up to "THE INLAND."—R. H. Covar, Orangeburg, South Carolina.

*An Angstrom unit= $\frac{1}{1000000}$ millimeter

Written for THE INLAND PRINTER.

THE STUDY OF ELECTRIC PRINCIPLES SIMPLIFIED.

BY A. STAPHE.

NO. III.—ELECTRIC CIRCUITS.



IN the consideration of electric phenomena one is obliged to recognize the necessity of some *path* for the electric current to traverse; this is called a *circuit*, because the current can only flow in an unbroken circuit or a complete path that returns to the starting point.

Circuits are divided into series and parallel divisions and combinations of these. A series circuit is one in which *all* of the current (amperes) passes through each and every device connected in series (one after the other) within the circuit. The amperes are constant, but the volts or pressure varies directly with the number of devices connected, provided that each device requires the same number of volts to supply the necessary current to operate it.

A parallel circuit is one that has many *separate* circuits looped into each other so that *all* the circuits have common access to the source of current. In such a circuit *all* of the current passes over the

of installing two ordinary 110-volt dynamos in which one dynamo is in series with the other.

In the diagrams, Fig. 1 illustrates two kinds of connections, known as series circuits; Fig. 2, a system of parallel wiring, and Fig. 3 illustrates series-parallel circuits.

To recapitulate, in Fig. 1 the current from the dynamo passes, as shown by the arrow, to the first arc lamp, then to the second, the third, etc., and comes back by the return wire, from which it is obvious that *all* of the current must pass through *each* lamp. The switch and ammeter are in series with the lamps and each other; that is, the current must *first* pass through the lamps before it can reach the switch or ammeter, so it successively passes from one device to the one ahead and in its traversing the entire circuit, the *whole* current passes through each lamp, etc.

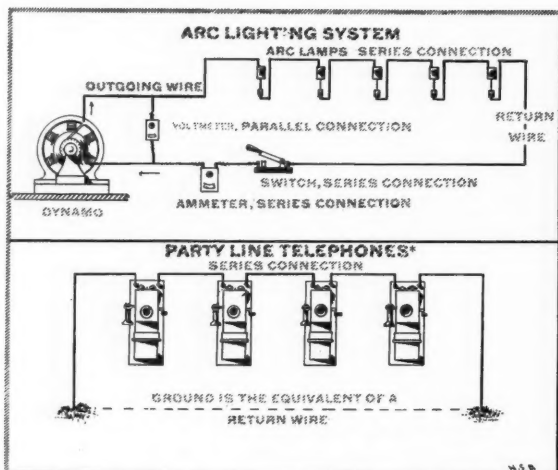
In Fig. 1 is also shown a voltmeter connected in parallel; in this case this device uses only a very small amount of current independent of the lamps; it is in parallel with them and the dynamo.

The series arc lamps ordinarily require 50 volts. It then follows that it requires 50 volts to send enough current to operate one lamp; a second lamp requires the same number of volts and the same amperes, but there is more to be done to supply two lamps than one alone, hence the dynamo must work at a voltage of 2×50 or 100, but since the current can meet both demands, the same amperes serve both lamps.

Four lamps are shown, and $4 \times 50 = 200$ is the required volts to maintain them in action. In ordinary use about fifty lamps are run on one series circuit, requiring a pressure of 2,000 volts. The party line telephone circuit shown will now be easily understood.

Fig. 2 shows a parallel circuit which is made up of the well-known trolley system. A dynamo sends out current in the direction of the arrow; as soon as it arrives at the first trolley pole it passes down to the controller in charge of the motorman; this being closed, it then passes to the motors under the car floor and then to the rails, through the car wheels and returns to the dynamo by the return wire which is connected to the rails at fixed distances. If more than one car is in operation, the current from the dynamo passes to the trolley wire as described; but only a *part* of the whole output goes to the first car and another part to the second and yet another to the third. The current required by each car is independent of every other car. The voltage is the same for all the cars because it has but little resistance to overcome in simply traversing the trolley wire.

The series parallel system, shown in Fig. 3, shows two dynamos, 1 and 2, connected to what is also called a three-wire system; one outgoing wire



*Sometimes telephones are connected in parallel and are then frequently referred to as "bridging" phones.

Fig. 1.

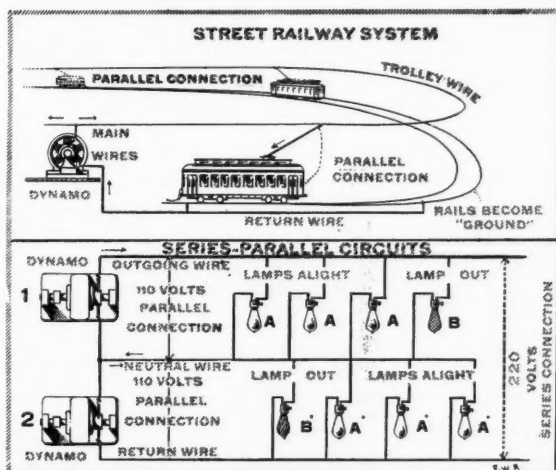
main outgoing and incoming wire, but only a *part* of it through each loop. We may also have a combination, or series-parallel connections.

An exemplification of series circuits is found in arc lamp street lighting; in this the current passes through the first lamp, then the *same* current passes through the second, etc.

A parallel or as it is sometimes called a multiple circuit is exemplified by trolley car systems, incandescent lighting and multiple arc lamps; a series parallel, by the three-wire method

leads from the dynamo 1 to the lamps, the second dynamo (2) feeds into the first. A return wire comes to the second dynamo, and a neutral wire joins between the two dynamos and serves as a path for the current of either dynamo, hence is called *neutral*.

Suppose only three lamps A to be burning and lamps A¹ to be turned off, the current supplied to lamps A would have to return to dynamo 1 over the neutral wire and dynamo 2 would be running idly because all of the lower set of lamps being turned off there is no path leading to the return wire and dynamo 2. As soon as the lamps A¹ are turned on, then the current is doubled and what passes through the lamps A also passes through lamps A¹, returning to dynamo 2, leaving the neutral wire idle. Suppose now lamp B, shown dark, is turned on, *more* current will now be required for the upper set of lamps than the lower ones, hence the *excess* must return over the neutral wire as no more can pass through the lower set of lamps than they *themselves* require.



FIGS. 2 AND 3.

The lamps A—B are in parallel with each other, as are lamps A¹—B¹, but the two groups are in series, one group with the other. The two dynamos are in series with each other and with the two groups of lamps.

To summarize: In a series circuit the amperes remain constant and the voltage varies and in a parallel circuit the voltage remains constant and the amperes vary; in a three-wire system (Fig. 3) the voltage remains constant on one side of the neutral, varying only when the other side of the neutral is also used, and then only doubling in value; the amperes vary according to the number of lamps or devices used.

Door bells are ordinarily connected in series, but burglar alarm connections to doors and windows are connected in parallel. If one bell was to

be rung from more than one place, the buttons would be said to be in parallel and the bell in series with the battery and a button at the moment it was being pressed.

In series circuits the turning off of any single device instantly makes every other device that is connected in *series* on the same wire inoperative.

In parallel or multiple connection the devices can be turned on and off *independently* of each

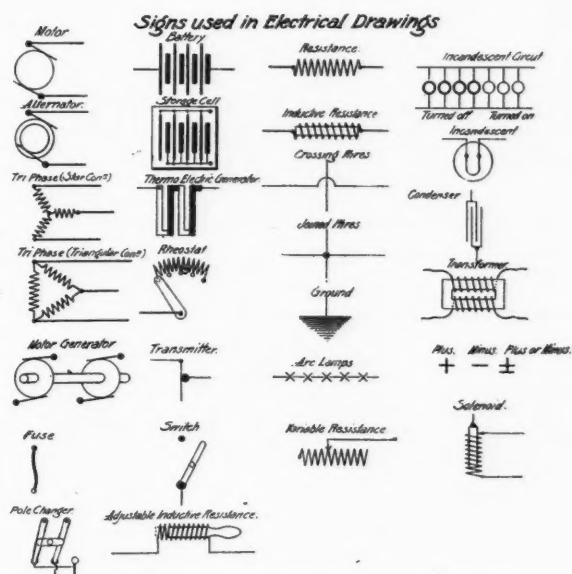


FIG. 4.—UNITED STATES PATENT OFFICE ELECTRICAL DRAWING SIGNS.

other, one incandescent lamp without affecting any other lamp.

The motors which operate printing-presses are connected in parallel with each other so as to make each press independent of every other one.

The + sign is used in sketches and diagrams to show where current leaves a device and the — sign to indicate where the current returns to it.

The ordinary conventional designations for the various kinds of diagrammatic representations of devices and circuits is shown in Fig. 4, which is reproduced from The United States Patent Office rules.

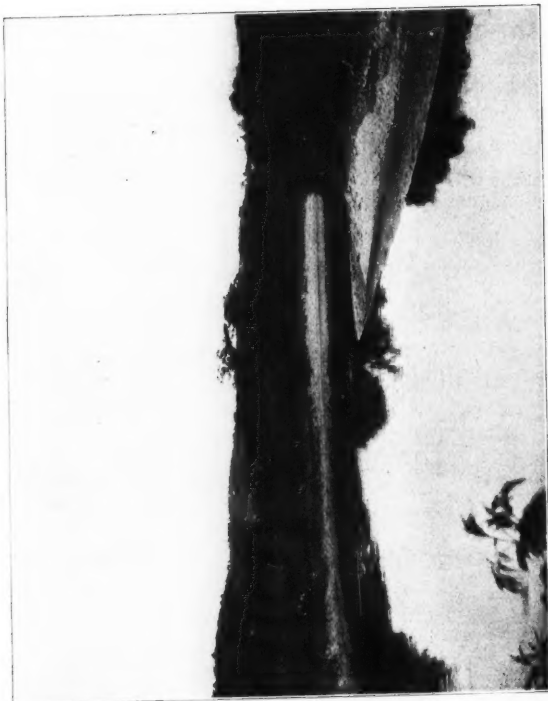
AN EXCELLENT REFERENCE LIBRARY.

I take this opportunity of expressing my appreciation of your valued magazine. When done reading, I get them bound in volumes. They make an excellent reference library for any printer. Most of my knowledge as a "juggler of types" was acquired by a careful perusal of THE INLAND PRINTER.—G. H. Merlin, Halifax, N. S., Canada.

LOCAL NEWS.—James Gordon Bennett of Paris Saturday in our midst. Mr. Bennett is the proprietor of our esteemed contemporary, the *Herald*. Come again, Jim, when you can stay longer.—Puck.



"THE HIGHLAND ROAD."



THE RIVER'S QUIET REACH.



ON THE TENNESSEE.



"THE OLD SWING BRIDGE."

NATURE'S INVITATION.



While our columns are always open for the discussion of any relevant subject, we do not necessarily indorse the opinions of contributors. Anonymous letters will not be noticed; therefore, correspondents will please give names—not necessarily for publication, but as a guarantee of good faith. All letters of more than one thousand words will be subject to revision.

EXTRAVAGANT ECONOMY.

To the Editor: CHICAGO, ILL., May 12, 1906.

The other day a job of postal cards came back to a print-shop because of an error. The printer explained that he had intended to send out proof, but the one over-worked errand-boy was out on a long trip, the customer was in a hurry, and a press was standing idle, so he left the responsibility with the proofreader and went ahead.

I do not know how many postal cards there were, but I doubt not enough to pay the wages of another errand-boy for the week at least. And next week he might be paid by the loss on the one or two more jobs which in all probability will be spoiled by a neglect to submit proof to the customer.

I once worked under a foreman whose ever-ready expression of "Let him be responsible" became a byword about the office. But it was a mighty good motto, nevertheless—and that same foreman never, I think, had a job to reprint in the two years I was with him. The customer not only should have the responsibility for correctness of his own copy, but it is his right to see his job before it goes to press, just as he expects to have a suit of clothes fitted to him after it is basted together, before being finished.

The errand-boy is the cheapest necessity about a print-shop—cheaper than compositors, pressmen, presses, power or stock—and most emphatically so if that stock happens to be postal cards, on which there is no discount, even in case lots. Economy at his end of the pay-roll is usually the height of extravagance.

E. S. HANSON.

NEWSPAPER WORK IN AN EARTHQUAKE.

To the Editor: OAKLAND, CAL., April 20, 1906.

The writer has participated in newspapermaking under varying conditions, but it remained for Wednesday, April 18, at Oakland, California, to furnish the most peculiar and trying of all of these experiences.

This was the day of the most appalling calamity in the history of the United States, namely, the earthquake of the Pacific coast, which practically destroyed the city of San Francisco and did such enormous damage to other coast cities in its range.

There is no need of details of this calamity; it is sufficient to say that all of the newspapers of Oakland and San Francisco were entirely crippled in one way or another, from the earthquake which threw the writer out of bed at Oakland at 5:13 on Wednesday, April 18.

The average human being is not afraid of what he can see, in a more or less degree, but an unseen power which may destroy at any time strikes terror to the bravest heart. This is what makes this the story of the greatest feat in the annals of newspapermaking.

We judge men by their deeds and actions, and if the subsequent actions of Manager Frank W. Worcester of The Oakland Herald, as narrated here, do not prove that he manipulated and directed the greatest piece of newspaper work ever performed in the world, then the writer is not a judge of newspaper work, and he has been actively con-

nected with the profession for about one score years and has had the benefit of a father and grandfather, who were also mixers of paper and ink and were classed as leaders in this line in their day.

Mr. Worcester was awakened, as was everybody else, by the shock, and not stopping to dress, slipped a bath robe over his pajamas, and with the writer, who was stopping at the same hotel, rushed their respective families into the street and placed them safely in a vacant lot. The families being safe, Mr. Worcester's next thought was the newspaper, The Oakland Herald, of which he is the directing power. Procuring a milkman's team, the only conveyance in sight, Mr. Worcester, without stopping to dress, was soon on his way to the office, a distance of about two miles.

Upon arrival at the Herald building it was found that everything movable had been thrown to the floor in every room and the place was in an indescribable confusion. The telephones, electricity, gas, water and everything were disconnected through the "quake," and it looked a hopeless task to ever place the plant in condition. Nothing daunted, Mr. Worcester proceeded to the street and accosting every one who came along soon had a force of half a hundred men at work, many to volunteer in the true Western fashion, though their own price for services was what Mr. Worcester proffered.

Many hands made light work and Mr. Worcester was soon in possession of a cleaned plant. Then for power, and by tapping the "Key Route" by a force of twenty men the power was soon in. For water, thirty men and boys were marshaled and plenty of water was soon at hand. In the meantime the Linotype operators, machinists, pressmen and others were busy in the mechanical department, and the editors, reporters, artists, and other employees were at work in their respective places and the whole plant was as busy and systematic as on the regular days of publication.

Now for an edition, the pressmen who were on hand went carefully over the big Goss press, the finest press on the coast, being of the very latest pattern and only a couple of years in the service. A few slight repairs and everything was ready there.

Upstairs the editors were collating the facts brought in by the reporters and soon the entire local field was thoroughly covered. Then for San Francisco—six tow-boats were soon steaming across the bay and a couple of automobiles were making the run around by land. Six more automobiles were circulating the city of Oakland and all the outlying districts and this was the only means of communication, for all wires were twisted and no connections possible.

The Linotype operators, the ad-men, the make-up and all were now working swiftly and quietly, and page after page was sent down to the stereotypers and soon eight pages were ready for the press.

First edition out—and of an evening paper at that, and on the street before even the local morning paper and before the San Francisco papers, which could have got across the bay if they had had the foresight to get a tow-boat or two.

A breathing spell now, and Mr. Worcester addressed his men: "Boys," he said, "I thank you all for this splendid support. We are going to have a strenuous day, and any of you boys that are ill or have any family duties to attend to, I want you to step out. Do not try if you do not feel fit. Further, we are going to have 'quakes' all day, and I want you all to leave the building each time there is a 'quake,' so if it is a bad one no one will be hurt. Now any one ill or with families to look after step out."

Not a man stirred, instead of which was a unanimous

murmur of "We are with you from start to finish." Tears rolled from Mr. Worcester's eyes and in a broken voice he said, "Boys, I thank you." He then turned and went to his office.

Just as he was seated there came a "quake." He did not stir and though he had told every man to leave the building not a man left, and each stayed right in his place.

Everything was now squared away for another edition. The reporters were coming in and the autos were whizzing and soon another edition was ready. Suddenly there was a bustle, and one of the men staggered in weak from running; he was one of the men from the towboats from San Francisco and he had the first and only authentic news from the doomed city. Not being able to secure a conveyance from the landing place he had run three miles to the office.

Soon another edition was out, and then squared away for another, every one working with might and main, with Mr. Worcester directing as a general directs his army. A reporter steps in and says, "Not a paper being published in San Francisco; all of the offices threatened and deserted." "They shall have a paper," responded Mr. Worcester, "we will send them one." He then mapped out what to do and how to do it, and this is how it was done:

Twenty thousand papers were printed, loaded into automobiles, transferred to towboats and then men and boys stepped aboard and soon were steaming toward San Francisco. The papers and the men and boys were landed and inside of one hour all were sold out. The paper caused a sensation; Oakland supplying San Francisco with papers and news! This was reversing the general motion of things and the enterprise of the Oakland *Herald* was loudly praised, despite the despairing surroundings.

All through the day the scenes of activity were many and varied. Several quakes were felt, but not a man left the building. Mr. Worcester was greatly touched by the universal good feeling of the men and freely thanked them while always saying, "Now boys, don't take any chances, for we only live but once." Despite this admonition there was always the answer, "We'll stay with you, no matter what happens" — and they did.

The most harrowing reports came from San Francisco and the fires could be plainly seen from Oakland shores. No one was allowed to land from Oakland at San Francisco, but all the ferries and other conveyances were coming across from the latter place loaded down with passengers.

Every one that could leave the doomed city was doing so and they were met by newsboys from the *Herald*, and every one wanted a paper. All reported that San Francisco was fated.

Night fell and still the work went on, and all through the night the same men worked, many without food, and all without rest or sleep. The morning of the second day dawned and the *Herald* was the only paper with eight pages. The *Call*, *Chronicle*, *Examiner*, got a united four-page paper headed as named. The other Oakland papers got out a four-page paper. Again the *Herald* and Mr. Worcester scored. This continued throughout the entire day, extra following extra, and all hands had put in thirty-six hours of continuous labor.

Then came a breathing spell and Mr. Worcester stayed right by the plant, but said, "Now boys, it is off for the present and go to your homes. Thank God, Oakland is safe and has been but slightly damaged in comparison to the other cities. You can all go home." The men demurred at this and a number would not go, but laid down right where they could. Thus the night passed and the work seemed at an end.

Then came a call for help from the *Examiner*, and Mr. Worcester very generously put the entire plant, paper and all at their disposal, and the editions of The Oakland *Herald* and San Francisco *Examiner* are now being printed in The Oakland *Herald* plant.

Without being a participant of an earthquake one can not realize the terror of it. The writer was in the paper-making for the blowing up of the Maine, the explosion of the Bennington and the Galveston flood, the Johnstown horror, and others, but they were as nothing in comparison to papermaking with the ground trembling under foot. He has worked in a building with a fire raging next door, every minute expecting *saute-qui-peut*, in a flood building in Mississippi while the river rose, in a building in Georgia during a cyclone, but to make a paper while the earth rocked was the latest and positively the worst in his experience.

JAMES SHIELDS MURPHY.

NOTE.—Don't think that anybody could not do what Mr. Worcester did; but the greatest point is, that while all other papers could do it, none of them arose to the emergency, and all of the managers of the San Francisco papers simply did nothing, while the other Oakland managers did but very little in this the greatest news story of the century.

THE TRADE PRESS IN THE EARTHQUAKE.

To the Editor:

CHICAGO, ILL., May 12, 1906.

The enclosed was the best we could do for our issue of

MINING AND SCIENTIFIC PRESS

Whole No. 2387.—

VOLUME 304.

Number 18.

"Science has no enemy save the ignorant."

THREE DOLLARS PER ANNUM

Single Copies, Ten Cents

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TO OUR READERS

In face of the calamity that has befallen the community in which we live, our own loss seems small. Our records, our library, the note-books of the editors, the manuscript ready for the printer, and the whole of the plant in our composing room, all lie buried under the ruins of San Francisco. But, owing to the customary precaution observed by two of us, complete copies of the weekly subscription lists had been

taken to Berkeley, so that we possess that necessary record. Fortunately, most of the members of our staff live at Berkeley, where the earthquake was less severe and where no conflagration followed in the wake of this terrifying occurrence. As the earthquake occurred at 5:15 A. M., and the fire in San Francisco prevented people on this side of the Bay from reaching their offices, most of us were spared the horror of scenes that bear the memory. We are fortunate, therefore, as compared to many of our fellow citizens. And for other reasons. Our plant has been demolished; but this journal is built on nothing so ephemeral as paper, and on nothing so cheap as machinery; it is based upon the support of many thousand readers and subscribers who are never less likely to withdraw their support than at a time of misfortune.

The goodwill of the Mining and Scientific Press is locked up in no safe, confined to no printing room; it cannot be shaken by an earthquake or consumed by fire. And, gentlemen, our friends, there is another something that is not destructible by physical misfortune or financial adversity, and that is the spirit that gives life to the printed word.

T. A. RICKARD,
Berkeley, April 20, 1906. Editor.

TO OUR ADVERTISERS

OUR old offices at 330 Market Street, being in the very center of the most damaged section of San Francisco, have been totally demolished. We have lost our entire mechanical plant, including cuts, halftones, type and the issue of April 21, which had already been set up; but fortunately, our complete and most recent mailing list has been saved.

We have secured ample offices in the First National Bank Building at Berkeley, which is on the east side of the Bay of San Francisco and close to the terminus of the trans-continental railroads. Through the courtesy of The Standard Publishing Company, we are in possession of proper facilities for printing. The Miehle presses, which will do our work, are new and of the most improved type. We will only be handicapped (for a few issues) by scarcity of paper; the rush of work at the local photo-engraving houses will prevent the use of half-tones with our reading matter, but we have arrangements pending to have this work done at Sacramento, which city was not affected by the earthquake.

We would urge all of our advertisers whose places of business have suffered, to communicate with us at the earliest moment, as our issue of April 28th will afford the best medium for advising their clients the world over of any change of address.

EDGAR RICKARD,
Business Manager.

April 21, and may be worth noticing in your paper. We are now back to our usual fifty-four pages.

L. A. GREENE, *Chicago Manager,*
Mining and Scientific Press.

WANTS HELP TO ORGANIZE.

To the Editor:

DECATUR, ILL., May 3, 1906.

The printers here in Decatur need an organization for the promotion of better prices and more harmonious action in the trade. Have you any information that you could give us about some one who could come here and organize them into a Franklin Club or Master Printers' Association, or something of the sort? It is almost impossible for the people here to get together among themselves on account of the amount of jealousy and personal feeling that is



COLLECTION OF FILIPINO HATS AND BOLOS.

sure to exist, although we have made a number of efforts. If you can suggest anything along that line, I would be very glad to hear from you.

W. E. MARQUAM, *Marquam & Co.*

The National League of Printing Plants, the idea suggested by Mr. Putnam Drew, is intended to meet these conditions. It is in effect an extension of the Master Printers' Associations. These associations are doing good work locally, which might by the league plan suggested by Mr. Drew be made of international scope and their usefulness and power for good be thus immensely increased. Mr. Edward F. Hamm, the secretary of the Master Printers' Association, 1214 Monadnock Block, Chicago, in the bulletin of the association under date of May 15, offers these arguments:

SELLING BELOW COST—"Not in business for my health" is a remark oftentimes made by the man in business, but how often does this appear to be an anomalous statement, judging by figures that are presented on some contracts for printing that come to our notice. We can not believe that any one in business, who intends to continue, would knowingly sell his product at less than cost—but is it not a well-known fact that many do? Is there any explanation for this? We think there is. The lack of proper

knowledge of costs. How many failures in the printing business can be traced to lack of this knowledge?

MISTAKES IN ESTIMATES—Can any one in business expend time or money to a better advantage than to maintain an accurate cost system, which is at all times his safeguard in estimating and pricing work? To make a success in business, it is not possible to make a good and fair customer who asks no price on his work pay for your own shortcomings where you have estimated too low on work for the customer who only places his work with you owing to a mistake in your estimate. With a proper cost system this would not be necessary.

FAIR PROFITS—Do you think any sane printer would go to a paper house and pay one dollar for a thousand envelopes and in turn sell them to his customer for ninety cents? We think not. In this case he knows by selling at less than one dollar he is losing money, and conducting business on those lines would mean bankruptcy. On the other hand, if his customer wants them printed, and it requires thirty minutes to set and lock up the form, he is at once at a loss to place a price on this item with a correct knowledge of the cost and a price that will net him a fair profit on his work.

LACK OF SYSTEM—Why this condition? It is all due to a lack of system in keeping record of costs and without which any manufacturing business, and particularly the printing business, with its many details and small items of cost entering into each and every job—no matter how large or small—is like a ship without a rudder. If a little more time were devoted to this part of the business, the results would soon be shown in your balance sheet at the end of the month, and we would not be met with the statement of the buyers of printing that there is no limit to the variation of figures they are able to obtain; many times varying one hundred per cent on the same specifications.

Printers have made the statement at different times that certain buyers of printing had confessed that their object in securing a large number of competitive figures from printers was that one of them would be sure to make a mistake, by which they would profit in having their printing done there.

FIGURING TOO CLOSELY—A printer recently stated that if he did not figure close on work for some of the large buyers, some other printer would, and he would lose out. He, therefore, often quotes at less than cost on some work, expecting to make up on other. Such figuring is demoralizing to the business, by establishing a price in future on that particular work, and it would not be tolerated were there a proper cost system in use in his printing office—then he would not be any more willing to sell his composition at less than cost—knowing it—than he would his stock he buys from the paper house, the cost of which he also knows.

I would be very glad to hear from every printer in Chicago as to what he estimates his cost of composition per hour to be, and which will give further information for another circular on the cost of composition.

The Master Printers' Association invites comparison of costs from all Chicago printers and will gladly furnish information and blanks upon application to

EDWARD F. HAMM, *Secretary,*
1214 Monadnock Block.

The general interest in the plan of the National League of Printing Plants is shown by the large number of printers writing for particulars. In one mail letters came from S. B. Newman & Co., Knoxville, Tennessee; Bowrun-Murray Company, Ashland, Wisconsin, and the Boston Envelope Company, Boston, Massachusetts. It would seem from this that the printers' troubles are confined to no one locality. Mr. Drew has a full description of his plan in preparation and all printers interested will be supplied on request by addressing **THE INLAND PRINTER**.

WANTS THEM QUICKLY.

I find that, after the lapse of four months in which I have not received a copy of **THE INLAND PRINTER**, I need it. Thought I could do without it, but find I can not. Have been a subscriber ever since your magazine has been printed. Begin with October, 1905, and fire them along quickly.—*Clarence Johns, Cincinnati, Ohio.*

HOW ONE MAN SUCCEEDED.

I get lots of good out of **THE INLAND PRINTER** and I think that taking and studying it is probably the reason I now own two nice job-offices and hardly put in a month's apprenticeship in a newspaper office.—*Ernest Hesse, Athens, Ohio.*

Written for THE INLAND PRINTER.

LONDON NOTES.

BY OUR SPECIAL CORRESPONDENT.



CASE that came before the Lord Chancellor's Court in London, the other day, was watched with great interest not only by British printers, but by printers' engineers, the latter being, indeed, more affected by the result than the former. The matter was one that had reference to the title of a well-known platen press that is to be found in almost every printing-office in Great Britain, the "Cropper." The action was brought by the Cropper Minerva Machine Company, Ltd., as plaintiff, to prevent Cropper, Charlton & Co., Ltd., and Others, selling platen machines, or advertising the same in such a way as to lead the trade to believe that they were genuine "Croppings," which the defendant company claimed the sole right to make and sell as such. The "Cropper" has an interesting history. In the early sixties Samuel Thacker was in America and saw the "Franklin" platen press, made by Gordon. The principle struck him as an advance on anything in Britain in his time and he thought that its introduction would be profitable. Mr. Thacker was a member of the firm of H. S. Cropper & Co., whose business was the manufacture of lace-making machines, and the construction



THE "BEHEADING STONE," STIRLING, SCOTLAND.

of a piece of mechanism like a platen press was to them easy, and so their manufacture was commenced and the machines put on the market under the title of the "Cropper." For many years the firm held the monopoly of the presses, but gradually other platens were put on the market under other titles — though the printerman called them all "Croppings" and still calls them so, of whatever make they may be. In 1893 the firm of H. S. Cropper & Co. was wound up, it having got into difficulties. H. S. Cropper and the two Thackers purchased the business from the liquidator, and took possession of the original works, thus succeeding to the original firm. Sidney Cropper, a relative,

then started making machines under the title of the Cropper Machine Company, but H. S. Cropper and the Thackers obtained an injunction to prevent the use of the word "Cropper," and then the opposition firm styled themselves Charlton, Cropper & Co. In 1905 an injunction was also obtained against that firm to prevent it booming itself as the successor of the original Cropper, and the recent action was to prevent the same firm using the word "Cropper" as applied to their machines. The plaintiff company claimed an exclusive right to the title. After a three days' hearing the judge decided that there was no right in the plaintiffs to the word "Cropper" if used in conjunction with any other word, and the defendants were quite at liberty to call their machines the "Cropper-Charlton." The plaintiff firm, however, were entitled to call their machines "Croppings," and that name, by itself, must not be used by any other makers of platen presses. The plaintiffs' action therefore failed and was dismissed with costs. The costs of the case will be considerable, as the privilege of a fight in the English law courts is an extremely expensive luxury.

AN interesting legal case has just been heard in which the parties were two well known firms of newspaper rotary pressbuilders; The Northern Press & Engineering Company, of South Shields, were the plaintiffs, and R. Hoe & Co., of London and New York, were the defendants. The action was for an infringement of an alleged patent of the plaintiffs by Hoe & Co., and the defense was that the device was in reality originally the invention of the defendant firm, while in any case the plaintiffs could not claim a right to the arrangement upon which they founded their action. The trial of the action lasted five days, when the judge reserved his decision. The judge after a fortnight's delay delivered his judgment, which was in favor of the defendant firm. His lordship held that, having regard to the state of knowledge at the time, the arrangement of parts in the machine required no substantial invention in the sense in which it was used in patent law, and did not furnish subject matter for a patent. All that had been done was to place parts of old and well known machines in their natural order; and in the circumstances he thought that to allow the plaintiffs a monopoly would be little less than absurd. He failed to see any exercise of skill and ingenuity which could properly be described as invention, having regard to what was known before. There had been no infringement by Hoe & Co., the patents were invalid and void for want of subject matter, and the action therefore failed, and must be dismissed with costs.

A NEW use for the Linotype has been found by the Bank of England, in which institution an installation of four machines has been put down for the purpose of addressing the dividend notices that are sent out periodically by the bank. This work has hitherto been done by the clerks, and charged as overtime.

YET another individual connected with paper and print has been returned to the British Parliament in the person of Mr. Franklin Thomassen, the managing proprietor of the new *Daily Tribune*, who has been elected to fill the vacancy for Leicester caused by the retirement of Mr. Broadhurst. Mr. Thomassen polled 10,766 votes while his opponent only scored 7,206, the majority being 3,560. The new M. P. is still on the sunny side of forty, and comes of a family which has played an important part in the fight for the principles of Liberalism and Free Trade, his grandfather having financed the great Cobden and Bright campaigns. He is practically a millionaire and is a Liberal who has known what it was to assault Tory strongholds in the days when such things existed. More recently he has revealed the sincerity and depth of his convictions by

giving to London that progressive newspaper which it had for some time lacked. His election on a thoroughly democratic program sends to the House another of those stalwarts of whom it can never have too many. A majority of 3,560 for a candidate new to the constituency so soon after the most astonishing contest at the general election, is a sign that the country is well satisfied with the new government's action. London newspaper men are quite jubilant over Mr. Thomassen's triumph.

THE annual report of the Printers' Pension and Orphan Asylum Corporation has just been issued and it states that at the close of the working year 300 persons were receiving pensions: 148 men, 148 widows, and four daughters of printers. To this list fifty-two pensioners will be added at the annual meeting. In the statement of accounts it is shown that, notwithstanding the increase in annual

to mouth competing with each other for a job on piece-work and having to take a fresh engagement each night! They manage things better in your country, as witness the great State Printery you have for your congressional and other work, which, whatever its abuses, is infinitely better for the workmen than the British slipshod method of employing private firms to do the official work.

PRINTING paper has been superseded in a novelty in printing for the blind which has been brought out by the Braille Printing Company, of Edinburgh, in the form of books made of thin aluminum sheets, instead of paper, embossed with the Braille characters in the usual manner. It is claimed for these books that they are easier to read than paper books, especially by those who have become blind late in life, or those whose fingers are not very sensitive, and an advantage claimed is that the pages can be kept



GREENOCK, ON THE CLYDE, SCOTLAND.

Noted for its shipbuilding and sugar industries.

payments to pensioners, the council has been able to add to the investments to the extent of \$15,000. The capital account of the pension fund now amounts to \$310,000. The year has been a record one. The amount received being \$57,500, the greatest amount received in one year. The payments amounted to \$27,000 and \$15,000 have been added to the investments. The pension corporation is now in its seventy-ninth year and is doing a good work for the aged and helpless in the printing trades.

THERE is a class of men, compositors, that hang about the premises of those printers who do the work of the houses of Parliament and the law courts, when in session, on the offchance of getting a few hours' work at night, when a rush is on, or official documents have to be got out quickly. This class of work is nearly always set in pica roman, and hence the men are known as "pica thumpers." The question is being asked why should not the House have its own tame "pica thumpers" and give them steady, regular work? Fancy! The solemn deliberations of the Mother of Parliaments set up by men who live from hand

clean by sponging and thus prevent the dissemination of possible infectious bacteria.

THE Annual Dinner of the Institute of Printers and Kindred Trades of the United Kingdom has just come off, at the Gaiety Restaurant, London. The lord mayor and the sheriffs were present and there was much speechifying and scratching of each others' backs. The objects of the institute appear to be mainly social, but there is a benevolent fund for the assistance of the poorer brethren. An endeavor is being made by the Institute to establish a court of arbitration to which any dispute that may occur in the allied trades may be referred.

MANY strange things are witnessed in that "poor and distressful" country Ireland, but perhaps one of the queerest scenes was seen a few nights ago in the busy town of Sligo when a large number of magazines and periodicals, including the Harmsworth publications, *Sunday Companion*, *Home Chat*, *The World and His Wife*, *Answers*, *London Magazine*, *Boys' Friend*, *Boys' Herald*, and a number of others, were burned in the Roman Catholic cathedral

yard, and on the street in front of the cathedral, by order of the missionaries who were conducting nightly services in the cathedral. It seems that a large number of these periodicals were distributed from house to house as specimens; one of the missionaries referred to the matter in the cathedral. He warned the people against reading this literature, and said it was not right for Roman Catholics to read Protestant books. In the middle of the burning of the books the town fire bell was rung in consequence of a slight outbreak of fire in a public house in Wine street, but many people thought it was rung to celebrate the destruction of the condemned periodicals. And this happened in a civilized country in the twentieth century.

SOME disagreement having arisen at the extensive printing-works of the Amalgamated Press (one of the Harmsworth concerns) at Gravesend, it is likely that the premises will be closed. A dispute took place among the employees,



ST. MARGARET'S CHURCH, WESTMINSTER.

one or two men being objected to for non-compliance with trade-union requirements, and the firm, which had practically nothing to do with the origin of the dispute, was put to great inconvenience, and so has given the whole of the employees, numbering over two hundred, a month's dismissal notice. The company will, it is stated, remove back to London. A large majority of the employees are petitioning the company to reconsider its decision as the closing of the works will mean a great loss to Gravesend tradespeople and others.

REGULAR DOSES NECESSARY.

Becoming tired of the uncertainty of getting THE INLAND PRINTER regularly at the news-stands, I enclose \$1.50 for six months' subscription. Like doctor's medicine, it must be taken regularly to give best results. Have been a student of your journal for years and always got my money's worth.—James R. Harris, Menomonie, Wisconsin.

Written for THE INLAND PRINTER.

AUSTRALIAN NOTES.

BY OUR SPECIAL CORRESPONDENT.

AUSTRALIA is now enjoying most excellent seasons and the incoming tide of prosperity is discernible wherever one may turn. Nature seems to have once again smoothed its wrinkled front, bountiful rain having for the past two years fallen at the most opportune times, the result being that the volume of trade every day materially increases. American exporting houses contemplating extending operations to Australia are assured that they may do so with every measure of success. For a long time past Australia has been subject to much adverse criticism, especially from the press of Great Britain, and most odious comparisons have been made between the Commonwealth and Canada, the latter receiving all the tender caresses from the "Mother Country," while Australia has had to endure the kicks and cuffs.

Just here a few solid facts presented to the American people might cause them to open their eyes and gape in wonderment, more especially after the laudatory article on Canada which appeared in the February number of THE INLAND PRINTER. Australia, compared with Canada, has but two-thirds the number of people, yet our population has increased, decade by decade, up to the present, in a higher ratio than has Canada's. In productivity, Australia is far ahead of Canada, and is likely still more markedly to excel. Of wool we produce annually forty times as much. Of sheep we have thirty times as many. Of cattle we have one-half more; of horses, the same number. Of wheat we produce twenty-six per cent less in actual figures, but per capita as much as Canada. Australian minerals alone are in value about three times the total product of Canadian mines, fisheries and forests added together. Animal products of Australia exceed those of Canada in value by two to one. Our imports are \$60,000,000 less than Canada's — our exports are \$55,000,000 more; and Australia's banking deposits are considerably larger than Canada's. How is all this for a bump?

WHENEVER a sanitary inspector pays a visit to any Australian newspaper office, which is precious seldom, it is invariably noticed that his attention is generally directed away from the nooks and corners where proofreaders are stowed. It is quite easy to understand this, for it would indeed be hard to discover worse accommodation than that usually allotted to readers. Any kind of poorly lighted and unventilated pig-pen, crowded with men till it resembles Surajah Dowlah's black hole, is thought quite good enough for those who follow one of the most trying of occupations. Some of our largest dailies are notorious sinners in this respect. A reform could easily be carried out if some of those responsible could be sentenced to three months' reading of mining and market reports under the conditions described, with half-a-dozen voices reading different matter at express speed alongside, accompanied by the rattling noise of numerous Linotypes, with a metal-cutting circular saw adding to the babel and helping to draw attention off the proof. Then each time a pedantic subscriber wrote complaining that plesiosauride was spelt with a lower-case "p," or Mpapwangwetza had two hyphens instead of the one that every human encyclopedia knows to be correct, the persons undergoing punishment could be awarded another week for displaying gross carelessness. That would help them to realize how the ordinary reader feels when fined or suspended for similar crimes.

THE tariff commission still continues its labors, and evidence given by manufacturers of printing-ink shows

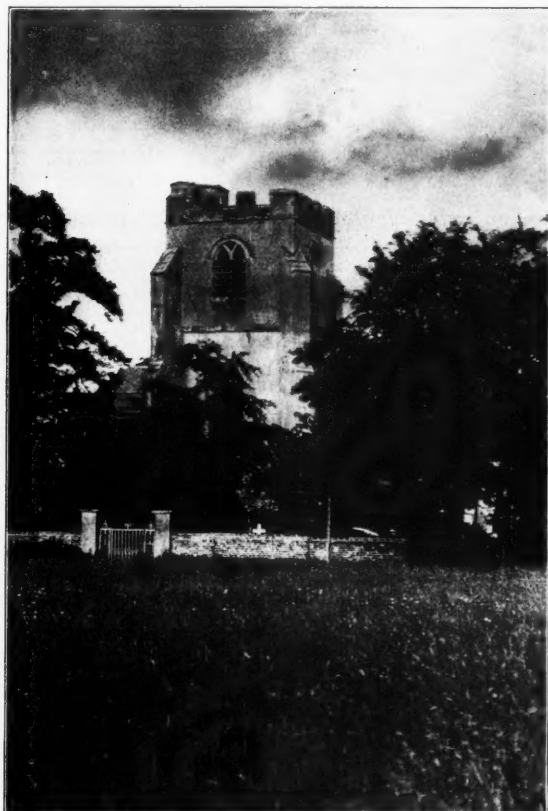
that to have any chance of making the industry profitable the import duty must be further increased. Mr. Robert Collie, of R. Collie & Co., Melbourne, printers' furnishers, said that unless the duty on rosin oil for use in the manufacture of printing-inks was struck out, his firm would not be able to continue the manufacture of cheap black news ink, but would have to import to do any business in that line. The duty on all printing-inks is twenty-five per cent ad valorem. If they could only have rosin oil admitted free, they would not advocate a higher duty on black news ink, as, if the anomaly were removed, twenty-five per cent on news ink would allow them to compete with the imported article. Mr. Collie asked that the duty on all printing-inks should be a fixed one—so much per pound. That would preclude the possibility of inks being imported at a fictitious value in order to effect a saving in duty. It puzzles one to know how imported ink, after paying twenty-five per cent duty, besides freight and landing charges, can be sold at a price lower than the manufacturer's price in the country in which it was made. An exception was suggested of black news ink invoiced at under 6 cents per pound. There should be a duty of twenty-five per cent ad valorem on this, as at present, but it should be in packages of not less than 112 pounds. Mr. F. T. Wimble, of F. T. Wimble & Co., Sydney, spoke in a somewhat similar strain, but

the bulk lines of printing-inks are sold by importers, says Mr. Wimble, makes him certain that the goods are brought into the Commonwealth and passed at much lower rates than their true value; also, Australian newspaper owners are supplied with imported inks at less cost than some of the London dailies. Continuing, he said the present duty on roller composition of twenty per cent ad valorem should be made a fixed duty of 12 cents per pound. The duty on electrotypes is useless, and to protect the electrotypes there should be a duty of two cents per square inch on all electrotypes and stereotype blocks, with a minimum of twenty-four cents per block. There is no duty on type passing into Australia, but Mr. Wimble would like to see one of twenty-five per cent imposed.

WHAT is said to be a record in Australian journalism has been made by the *Melbourne Age*. On a recent Saturday it issued a twenty-four-page paper, each paper containing nine columns, or two hundred and sixteen columns in all. The paper used weighed no less than twenty-eight tons, the largest quantity, it is claimed, ever printed for any single publication of any newspaper in Australia. The quantity of metal used on the Linotype machines was one and one-quarter tons, while the weight of metal used for the stereotype plates was seven tons. In connection with this issue about the most impressive feature was that the advertising columns contained no less than five thousand separate advertisements. In the matter of make-up and advertisement display, the *Melbourne Age* is about the most conservative of the Australian dailies. Scare heads are never seen in its pages, blocks or heavy type do not appear in advertisements, very seldom is there an illustration in the news section, while to an American reader the pages would look as solid as a brick wall. Indeed, nearly all Australian morning papers are produced on similar lines, though some present half-tone blocks, but with very sorry effect. The *Brisbane Courier*, however, is a most noticeable exception, its printing of half-tone blocks on a rotary printing-press being far ahead of any Australian daily or weekly similarly produced. Indeed it would not be egotistical to say that what it places before its readers is not to be excelled in any part of the world. In confirmation of this, Mr. C. Wilton, overseer of the *Brisbane Courier*, will forward to any one who wishes, a copy of his paper; also, he will be glad to explain his process of make-ready and printing.

IT IS not very long ago that a prominent post-card collector said there was not a decently printed Australian post-card on the market—what he did purchase he kept as curiosities, as they were not worth sending away, but now a change has come o'er the scene. Australian craftsmen are producing many fine subjects typical of picturesque Australia and New Zealand. One of the leading exponents of the Australian branch of this industry is the firm of Osboldstone & Attkins, of Melbourne, the quality of their work being quite on a par with anything imported. Recently Mr. Will Attkins severed his connection with this printery, and went to Europe on a health and experience trip. He is now on his way back, and proposes establishing himself in Sydney as a high-class printer, when it is expected that in the way of color printing he will give his contemporaries of the slow-going metropolis something of a shock.

REPORTS are often current that new dailies are to be established in one or more of the Australian capitals, but somehow or other these rumors never materialize, much to the disappointment of those compositors and journalists who are unemployed or who wish to change their sphere of operations. The latest Richmond who is said to be entering the field is the leviathan England journalist, Sir Henry



WHITCHURCH, NEAR EDGWARE.

added that agents representing foreign ink manufacturers are also allowed concessions by special discounts. He said he had been shown an invoice by a newspaper proprietor which quoted ten per cent discount and five per cent deduction as a special export rate toward defraying the cost of duty and freight charges. The price at which many of

Harmsworth. He is known for some time to have had his eye on Australia as a land to which to extend his newspaper enterprises. When questioned recently in England by an Australian, he replied that he had no doubt that there was room for a paper of similar character to the London *Daily Mail*, which, as far as one can judge, is a decided replica of the class of newspaper to which the American public is accustomed. Sir Alfred said there was the one difficulty of getting a first-class manager, and he was willing to give \$35,000 a year, with a seven-year engagement, to the sort of man he wanted.

TEN years ago, the Sydney *Daily Telegraph* installed the Linotypes, this being the first newspaper in Australia to



PERIVALE CHURCH.

discard hand-setting. The majority of the men who were selected from the case as operators have been working at the machines ever since. Now it is discovered that their eyesight is failing and all sorts of conjectures have been advanced as to the cause. The proprietary called in one of Sydney's leading ophthalmologists to examine the men, report on the conditions under which they worked, and endeavor to ascertain if a remedy could be effected. The eyesight of some was found to be defective, and glasses now adorn their noses, but other results of his investigations are not known. However, the incandescent electric lights attached to each machine have been cast aside, and immense arc lamps, which shed a light as near as possible to daylight, have been hung in several parts of the composing-room. Also, every part of the Linotype machine which was nickel or burnished has been blackened. The operators are satisfied with this departure.

THE necessity of the worker or of the employer is the opportunity for magnanimity.

TECHNICAL OVERTRAINING IN GERMANY.

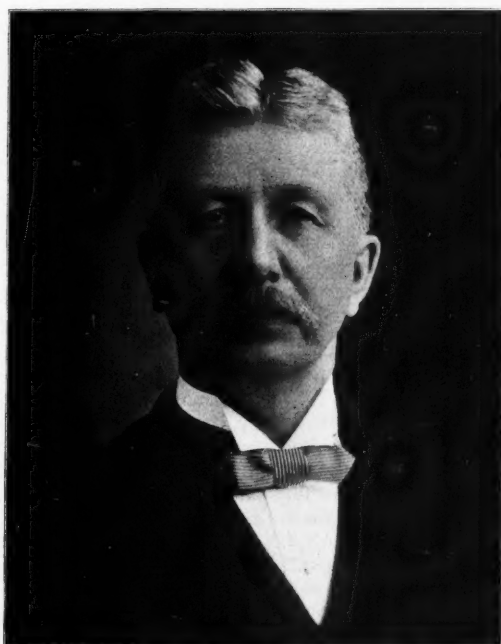
It would appear that the German Empire is rapidly training a class of men for whom it has no employment at fair wages, and for whom the demand does not increase so fast as the supply, and the opinion in Germany seems to be gaining ground that technical education has been carried far beyond the power to utilize it. The American consul at Mannheim says that the question of erecting a school for the building trades in Mannheim being at present under discussion, a prominent constructing engineer has contributed an article to a leading newspaper of that city, in which he endeavors to show that technical education in Germany has gone beyond actual needs. He contrasts the number of those undergoing such training with the number in other professions, and concludes that the ranks of the technically trained are at present much overcrowded. He states that the number of those studying in the technical high schools in Germany in the winter of 1890-91 was 5,432, and in the winter of 1904-5, 15,866, or, in other words, there was an increase of about two hundred per cent. On the other hand the number studying theology in Prussia in the winter of 1887-88 was 2,713, and in the winter of 1903-4 1,005, or a falling off of almost one-third. The number of medical students in Prussia in the summer of 1887 was 5,168, and in the winter of 1903-4, 3,020, a falling off of almost one-half. In the scientific technical branches of the departments of philosophy in the advanced schools which, as shown by experience, prepare a large percentage of technically trained students, the number of such students in the winter of 1901-2 was 1,100, and in the winter of 1903-4, 6,345. It thus appears that there is a rapid increase in the technically trained, that casts into the shade the well-known enormous increase in those trained in legal studies, which in 1899-1900 amounted to 2,925, and in 1903-4 to 6,345. From the latter ranks, also, it should not be overlooked, come many of those holding official positions in industrial undertakings. Similar conditions are to be noted in the middle and lower technical schools. Thus, in the twenty-two schools for the building trades belonging to, or receiving aid from, Prussia, the number of students in the winter of 1902-3 was 4,251, and in the winter of 1903-4, 5,077, an increase of twenty per cent in a single year. For a period of ten years this increase would amount to two hundred per cent. The number of special schools in the metal industries belonging to or supported by Prussia, in 1891 was nine, in the winter of 1903-4 it was nineteen, an increase of one hundred and ten per cent. The number of students in attendance in 1891 was 755, and in the winter of 1903-4 it was 3,010, an increase of three hundred per cent. This number is equaled if not exceeded by those attending private technical schools. In Saxony, which may be looked upon as a kind of rearing-ground for middle-grade technical students, the number of schools for machine construction in 1884 was two, with 524 students. In 1902 there were 6 schools, with 2,687 pupils, an increase of two hundred per cent in schools, and four hundred and ten per cent in pupils. The number of schools for the building trades in 1885 was five, with 469 pupils, and in 1902 it was ten with 1,342 pupils, or an increase of one hundred per cent in schools, and one hundred and eighty-five per cent in pupils. It is apparent that the increased numbers in the technical ranks have gone far beyond the demand—two hundred per cent against about fifty per cent on the average. The consequence of this overproduction in technical resources is a constantly diminishing rate of wages.—*Journal of the Society of Arts, London.*

PERMIT me to express my admiration and appreciation of your practical publication.—F. M. Kaufman, Flint, Michigan.

DISCIPLES OF FRANKLIN.

NO. VII.—PETER BARBEAU OLSEN.

PETER BARBEAU OLSEN was born in Christiania, Norway, April 11, 1848, and was educated in the schools of his native town. He arrived at Chicago in 1872 and went to work as a compositor on the *Daily Skandinaven*, with which paper he was connected until 1888, the greater part of the time as literary editor and writer. He was also for a short time city editor of the *Nordvesten*, at St. Paul, Minnesota. Mr. Olsen was employed as map clerk in the Recorder's office at Chicago from 1888 to 1892, when he again resumed newspaper work. From 1895 to 1902 he was employed as clerk in the county map department. He was also elected Representative in the General Assembly, on the Republican ticket, from the old Eleventh (now the Twenty-fifth) Senatorial District in 1898, and



PETER B. OLSEN.

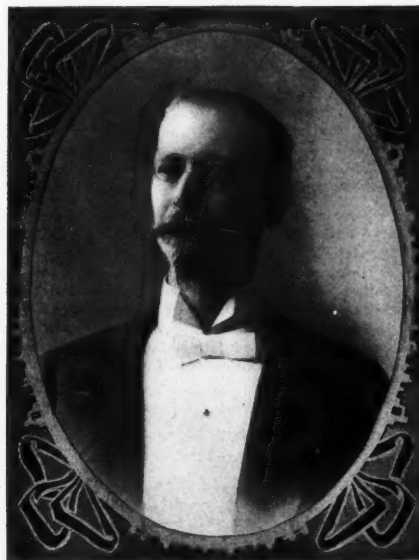
reelected in 1900. In 1902 Mr. Olsen was elected County Clerk of Cook county, with a plurality of 13,827. He has been twice married and has seven children living.

SAMUEL KING PARKER.

Samuel King Parker was born March 1, 1846, in Gosport, on the south coast of England. In August, 1854, he went with his family to Toronto, Canada, and after a few years' attendance at the Provincial Model School, was entered apprentice in the office of W. C. Chewett & Co., later Copp, Clark & Co. About one year after completing his term Mr. Parker came to Chicago and worked for a number of years with the firm of Church, Goodman & Donnelly, the greater part of the time as stonehand.

Shortly before the fire of 1871, Mr. Parker transferred his labors to the office of Horton & Leonard, subsequently Knight & Leonard, and remained with that firm as leading job compositor until about 1887, when he took employment with the house of Brown, Pettibone & Kelly, afterward

P. F. Pettibone & Co., as assistant foreman and proof-reader. Being vice-president of the union at the time of the job-printers' strike in 1888, he was required to relinquish his situation and devote all his time, as a member



S. K. PARKER.

of the Executive Committee, to strike matters. The strike benefit fund was placed in his care.

The strike over, P. F. Pettibone & Co. being non-union, Mr. Parker worked for Hornstein Brothers a short time, then at Poole Brothers a few weeks, then went to work for the McCluer Printing Company, where he remained about three years, then went to the proofroom of the Henry O. Shepard Company—his term of service now (1906) reaching fifteen years, the last eight years as head reader.

As a singer, Mr. Parker had an extended experience. He was a member of the choir of the Cathedral of St. James, in Toronto, and of the Cathedral of SS. Peter and Paul, in Chicago. At various times he rendered regular service in the choirs of The Ascension, Grace Church, St. Alban's, The Transfiguration, St. Paul's, in Kenwood, and St. John's, in Irving Park. For ten years he was a member of the Apollo Musical Club.

A SIGN OF PROGRESSIVENESS.

I have observed this principle to hold as true as the iron-clad laws of science, that wherever THE INLAND PRINTER is found on the desk of an editor or foreman, there is a progressive and prosperous office. I am scarcely out of an "apprentice" degree, but your magazine has been of inestimable value to me.—Walter Jack, Pierpont, Ohio.

CONTAINS BARRELS OF INFORMATION.

The old stand-by (THE INLAND) continues to hold its own, and its make-up and the barrels of information and instruction contained therein must be, and no doubt is, immensely appreciated by all who are fortunate enough to get hold of it.—Thomas E. Abbott, Pasadena, California.

ATTEMPTS of newspaper "artists" to picture what would happen to New York if a severe earthquake happened along, remind us forcibly that Gustave Doré was a big man.—Puck.



BY JOHN S. THOMPSON.

Communications relating to typesetting by machinery are invited. All queries received will be promptly answered in this department. Address, The Inland Printer Company, 120-130 Sherman street, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, \$1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

THE LINOTYPE, 1897. By Frank Evans, 100 pages. \$3 postpaid.

FACSIMILE SIMPLEX KEYBOARDS.—Printed on heavy ledger paper. 15 cents.

THE LINOTYPE OPERATOR'S COMPANION.—By E. J. Barclay. 64 pages. \$1, postpaid.

LINOTYPE OPERATOR-MACHINIST'S GUIDE.—By S. Sandison. 36 pages, vest-pocket size. Price, \$1.

STUBBS' MANUAL.—By William Henry Stubbs. A practical treatise on Linotype keyboard manipulation. Cloth, 39 pages, \$1.

CORRECT KEYBOARD FINGERING.—By John S. Thompson. A pamphlet of 16 pages, containing a system of fingering the Linotype keyboard for the acquirement of speed in operating, with diagrams and practice lists. 25 cents.

FACSIMILE LINOTYPE KEYBOARD.—An exact reproduction of the latest two-letter Linotype keyboard, showing position of small-caps., etc. Printed on heavy manila stock. Location of keys and "motion" learned by practice on these facsimiles. Instructions are attached, giving full information as to manipulation. 25 cents, postpaid.

MODERN BOOK COMPOSITION.—By Theodore Low De Vinne. Fourth volume of the series on "The Practice of Typography." A thoroughly comprehensive treatise on the mechanical details of modern book composition, by hand and machine, including valuable contributions on Linotype operating and mechanism. Cloth, 12mo, 477 pages, \$2.

HISTORY OF COMPOSING MACHINES.—By John S. Thompson. A comprehensive history of the art of mechanically setting type, from the earliest record—1822—down to date; descriptions and illustrations of over one hundred different methods. A complete classified list of patents granted on typesetting machines in both Great Britain and the United States is given. This is a revision of the articles, "Composing Machines—Past and Present," published serially in THE INLAND PRINTER. 216 pages. Bound in full leather, soft, \$3; cloth, \$2; postpaid.

THE MECHANISM OF THE LINOTYPE.—By John S. Thompson. Revised Second Edition, 1905. The standard text-book on the Linotype machine. Full information and instructions regarding the new Pica and Double-magazine Linotypes. Every adjustment fully described and illustrated, with additional matter concerning the handling of tools, etc. A full list of technical questions for the use of the student. Fifty illustrations. Twenty-nine chapters, as follows: Keyboard and Magazine, Assembler, Spaceband Box, Line-delivery Carriage, Friction Clutch, First Elevator, Second-elevator Transfer, Second Elevator, Distributor Box, Distributor, Vise-automatic Stop, Mold Disk, Metal-pot, Pump Stop, Automatic Gas Governors, The Cams, How to Make Changes, The Trimming Knives, Erecting a Machine, Two-letter Attachment, Oiling and Wiping, The Pica Machine, Double-magazine Machine, Plans for Installing, Tools, Measurement of Matter, Definitions of Mechanical Terms, List of Adjustments, List of Questions, Things you Should Not Forget. Bound in flexible leather for the pocket, making it handy for reference. 218 pages. Price, \$2, postpaid.

HAIR-LINES.—C. P. P. Co., Oshkosh, Wisconsin: "Some days ago we sent you sample of some matrices and a printed sheet of eleven-point. The presence of hair-lines in the printed sheet caused us to submit these to you, for this reason: the matrices are not old, being in use hardly two years, and then only off and on with no constant usage. Of course we realize that sooner or later we will have to purchase a new set, but before doing this it occurs to us that perhaps you can advise us some way that will prolong the life of this set. In your opinion what caused the breaking-down of the wall of these matrices?" *Answer.*—We have carefully examined the matrices and find that in every instance they are battered on the right-hand side, showing that they receive a blow from the incoming matrix when the line is being assembled. You will notice the thick

matrices have the left-hand side of the lower ear beveled away to prevent this battering. However, this beveling is not carried on the thinner matrices and the result is the destruction of matrices which they strike. It may be that you can obviate this trouble to some extent by so inclining the assembler rails and chute spring as to cause the incoming matrix to strike the assembled line at a higher point on the matrix. A new star-wheel would assist, and the proper adjustment of the assembler brake would prevent the line rebounding and the incoming matrix striking the matrix seat of the previous one.

CLOGGED METAL-POT.—F. T. H., Clinton, Iowa, writes: "We have a machine here with one of the inlet holes of the well stopped up. The operator, who also takes care of it, says it has always been in this condition. Could it be possible that this hole was not drilled all the way through originally? It seems to be so solid that it is impossible to push a bent rod through it. Would you advise the procuring of a drill that could be placed in the well, after the plunger is removed and the metal dipped out, so as to drill this hole through? The plunger on this machine incessantly sticks, generally after running a couple of hours, and must be cleaned as often as four and five times a day." *Answer.*—Regarding the hole in the well being stopped up, if this were the case, no metal would enter and you could not possibly cast a slug. It may be partially closed, however, and if you dip all the metal out of the pot and leave it heated up, you can use a bent wire with a square end and melt a piece of tallow in the well and scrape the hole in that way to clear out the oxid. If the plunger sticks always, it must be because your metal is very dirty, and we would advise you to procure the metal flux sold by the Linotype Company and clean the metal regularly with it.

SUCCESSFUL GRADUATES.—Charles E. Zahn, Marinette, Wisconsin, a recent graduate of the Inland Printer Technical School, writes: "Since coming here in October I have had a very satisfactory time with regard to the machine. Of course I was scared half to death to think of taking a double-decker, but being on the night shift, when no one but another operator was present, I felt easier. The machine was O. K., with the exception of transfer of spacebands, which gave a great deal of trouble and had since the machine was first installed. The spacebands seemed to swing too freely, causing them to squabble just as they entered the spaceband box. A little time ago I heard of a remedy which I applied—the putting of a strip of leather in the intermediate channel, just allowing the bottom of spacebands to barely touch. This has been very effective, for we have had no trouble since. It saves a great amount of time and keeps a man from losing chances for heaven (which, with printers, are scarce enough at best). We have had no trouble to amount to much. Once or twice we have had to stop and think a little bit hard, but finally managed to 'come out of it.' Only recently we were troubled with back squirts for about two days. I finally tested the lock-up of the pot and saw it was away off and so brought the pot forward where she stood away. This ran along O. K. for a day, when she seemed to be giving the same trouble, and I found that the jam-nuts had worked loose. At present it is running like a charm. About two evenings ago I got a back squirt that was a flood. It was a daisy. I cleaned it all up and there being no apparent cause other than that it 'just happened,' I went ahead and the same thing occurred again. I gave it one more trial and then began to look for the trouble. I lowered the vise, pulled mold forward and examined back of it, as well as mouthpiece. At the last vent on a thirteen slug I found a hard piece of metal wedged in the vent about

as large as a dull pencil point — hard as a rock. I removed it, wiped off mouthpiece and back of mold-disk and locked it up and went ahead with no further trouble. How this bit of metal got there, I haven't figured out. Minor troubles have been encountered of course, but nothing which has caused us to lose sleep. Every man in the Twin Cities is a 'school' man. We are not the fastest men on earth, but we are holding our jobs, which gives a certain amount of satisfaction."

TROUBLE WITH THE GAS GOVERNOR.—T. A. L. L., Flint, Michigan, writes: "(1) The machine I am working here gives me a great deal of trouble with the gas governor. Some time ago, upon examining the pressure governor, I found it was loaded down with old slugs which were binding it down at the sides. I made a weight for it, which allows a medium flow of gas at 6:30 A.M. That seems to work most mornings up till about 9 o'clock, when I have to use two or three little iron washers to make weight enough to give a sufficient flow of gas. It seems to me it should not need this kind of regulation, as the float moves up and down quite freely under pressure of the finger. The above may have some effect on the machine governor, which causes me any amount of bother every hour of the day. The machine is set to a thirteen-em ten-point slug.

how it got so worn." *Answer.*—(1) Perhaps your difficulty with the governor may be overcome by adjusting it so that when you first light up the machine in the morning you get a full flow of gas without violent blowing. If you can not get this flow without weighting the float so it rests on the bottom, you must take the governor apart and lower the valve on the stem. Do not file the "V" cut in the machine governor, as when you get the pressure governor regulated you will have no trouble in adjusting the machine governor. It may be advisable to take the machine governor off of the machine and pour the mercury out and remove all dirt from it. After you have replaced the governor, perhaps the presence of air bubbles in the mercury will cause it to act in an erratic manner for a few hours. Be sure and have enough mercury in the governor to control the flow of gas when you push the stem inward. (2) Regarding the stopping pawl, filing off the top of it could not cause any trouble. It will merely necessitate the readjustment of the screw between the two parts of the pawl to throw the upper part of the stopping pawl that much higher.

WORKING UNDER DISADVANTAGES.—A Linotype operator writes the following communication. It is to be regretted that the conditions stated are all too prevalent.



E. T. SCHEERER.



FRANK O'NEAL.



FRED. S. WALKER.



JOHN RUF, JR.

RECENT GRADUATES, MACHINE COMPOSITION BRANCH, INLAND PRINTER TECHNICAL SCHOOL.

The plunger is somewhat loose in the well. The machine governor is of the kind that has the plug for raising and lowering the mercury and has a 'V' cut in the tube. Now, if I have a fair flow of gas in the morning and adjust the main-pipe governor so that it gives a fair flow, and also set the machine governor, it will work for an hour, or a little longer, when I have to pull out the plug and sometimes add weights to the main governor float. In the course of the next hour the plug has to come out farther. About 10 o'clock I have to reverse the action on the plug, shoving it down. From noon until I quit at 3, I have to keep at it frequently to prevent the metal from getting too hot or getting too cold. An operator-machinist in this place has suggested that I file away the 'V' in the tube. Do you think that will remedy it? He says the mercury has too far to rise and fall to make the necessary change in flow of gas, so that it is heated or cooled off quicker than the gas is regulated. I have tried all this week leaving the heaviest necessary weight on the main governor, but it has not fixed the trouble. (2) Some time ago I filed down the edge of the stopping pawl, which had become rounded in some way. The machine was making double revolutions, as the curved edge of the pawl would not catch on the stop lever. I filed a quarter of an inch or more off the pawl and thought it might have some injurious effect on the machine. In your answer you said it must be an old-style hook pawl, as the new style would not get out of order and would not permit a double revolution. But it is a new-style pawl, though I can't tell

"The writer was privileged to learn the mechanism and operation of the Linotype under a first-class machinist-operator—one who was well aware of the fact that the machine must be kept in first-class condition at all times in order to obtain the best results. One of the very first statements made (and one which afterward proved its veracity) was that the Linotype when shipped from the factory is in good working order; that all adjustments have been made by competent machinists, and that if ordinary care and judgment are used in erecting a machine, it will perform its work without a general filing, driving or forcing of various parts. I was also informed that if the machine stopped while making a revolution, a few moments spent in observation and examination would ultimately prove more satisfactory than to begin changing adjustments under the illusion that the machine had suddenly gotten out of adjustment. I was also told that if I would spend about fifteen or twenty minutes each day in brushing the dirt off the plunger, cleaning the cams and the friction clutch I would be rewarded with few break-downs or tie-ups at critical times. One day a situation on a daily sheet in a small town offered itself. I accepted. The plant consisted of two machines—a single-magazine machine of ancient model, and a double-decker—said to be in first-class condition, being only about a year old. The first line I sent up stopped the distributor; likewise the next—and several more. By inquiry I learned that my predecessor had had some little trouble with the distributor. Some 'expert' had filed off the end of the second

elevator bar so the matrices would shift easily. I found that a drop of oil in the track of the shifter remedied the difficulty. The clutch had not been cleaned nor fitted with new leathers for many moons. The oil had hardened upon the joints of the clutch until it looked something like soft-soap. The lever which shifted the keyrods from one magazine to the other had long since been placed upon the retired list. A machinist from the Mergenthaler Company spent four days upon this machine before it was in good running order. Such was my first experience with a machine 'in first-class condition.' At another time I accepted a position on a night shift, having been previously informed that 'although there was no machinist with the machines (three in number) at night, one of the operators of that shift could make the ordinary repairs necessary.' I found that the matrix trays under the distributor screws had a generous supply of bent matrices, while the floor beneath was quite thickly strewn with others. The cams and parts of the machine adjoining the metal-pot at first appearance seemed to be covered with silver leaf, but closer investigation showed it to be only splashes of metal. While some of the keys required several taps to get a response, others were more generous and gave forth the contents of their channels at first call. A squirt soon betrayed the fact that the lock-up was imperfect, and I was continually reminded of this fact by flakes of metal that had adhered to the spacebands falling upon the keyboard. The majority of the spacebands had been bent more or less, and straightened in a very indifferent manner, and, as a result, each band gathered quite a bit of metal during a run. Upon asking where I could get some graphite to clean the bands with, I was informed that they did not use graphite; they 'just wiped them off with an oily rag.' To speak generally, the machines were in a very bad condition, and, as a result, the operator spent from one to three hours of his run in cleaning up squirts and patching up break-downs. Each operator was interested in the welfare of the machine only while he was operating it. The operator following him could look out for himself. With such conditions prevalent, what could be expected in the way of an output? And how could an employer expect to hold a first-class man on such a machine? Owing to circumstances, I remained in this office three months, and within that time several different operators sat at these machines. Some remained a day, some longer. The inefficient were discharged; competent operators would not work long under such conditions. Perhaps there are many more offices that come in this class. It is to be regretted that the ordinary employer or foreman has so little practical knowledge of the Linotype. When rushed to get out their work, many of them will place any one on the machine. The result is usually that it takes two or three hours of the time of a \$20-a-week man to repair the damage done. In the ordinary office beginners are expensive help. In offices where corrections are made at irregular intervals, and where the machine has a variety of faces of type, there should be a small font of type like each Linotype face. It not only consumes much of an operator's time to change his machine for corrections (many times only one or two lines), but it is detrimental to his speed."

TO THOSE who do not realize to what extent the Linotype machine can be utilized in the production of high-grade book and job work, the thirty-two-page booklet just issued by the Mergenthaler Linotype Company will be a revelation. The University Press, of Cambridge, Massachusetts, are the printers and have maintained the high standard of their productions. The wide range of work possible with the Linotype is strikingly shown by examples including

handsome book, magazine and catalogue pages printed on laid paper and enameled stock, in English, Greek, German and Hebrew; tabular work showing examples of the Rogers system; mixed composition possibilities of the double-magazine Linotype, and specimens of mathematical and directory composition. The showing of jobwork done on the Linotype discloses possibilities in this direction in the production of simple and tasty business cards, letter-heads, tickets and menus. Stock suitable to each specimen has been judiciously chosen and the booklet is one of which the Mergenthaler Company and the Cambridge Press may justly be proud.

RECENT PATENTS ON TYPESETTING MACHINERY.

Typesetting Machine.—W. J. Ennisson, New York city, assignor to the Unitype Company, Manchester, Connecticut. Filed April 18, 1902. Issued March 13, 1906. No. 814,681.

Electromagnetic Device for Distributing Machines.—O. G. C. Schmitt, Frankfort-on-the-Main, Germany, assignor to Wagner & Brand, Frankfort-on-the-Main, Germany. Filed May 20, 1904. Issued March 20, 1906. No. 815,748.

Vise Jaw.—R. M. Bedell, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed September 12, 1905. Issued April 3, 1906. No. 816,841.

Linotype Magazine.—P. T. Dodge, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed June 5, 1905. Issued April 3, 1906. No. 816,849.

Linotype Vise Jaw.—D. S. Kennedy, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed December 9, 1905. Issued April 10, 1906. No. 817,646.

Assembling Device.—C. L. Grohmann, New York city, assignor to Mergenthaler Linotype Company, New York city. Filed October 21, 1905. Issued April 17, 1906. No. 818,243.

Pot-Mouth Wiper.—M. W. Morehouse, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed December 11, 1905. Issued April 17, 1906. No. 818,274.

Trimming Knife.—J. B. Allen, Detroit, Michigan. Filed June 6, 1903. Issued May 1, 1906. No. 819,034.

WORTH MANY TIMES THE PRICE.

Your journal is worth many times what you ask for it, and I always hail with delight its arrival. Many good things are found in *THE INLAND PRINTER* each month that are not to be seen in any other paper of its kind. I could not get along without it.—*F. W. Kille, Deming, New Mexico.*

ARTISTIC AND LITERARY WORTH.

THE INLAND PRINTER is not only a trades journal of indispensable value, but is a publication worthy of every praise from its artistic and literary worth.—*Gaines S. Dobbins, Clinton, Missouri.*

THICK paper can be made transparent for tracing, for securing register in color forms on the stone, for marking out cut overlays on the back of the sheet, etc., by dampening the stock with pure distilled benzine where needed. A carbon sheet is also used in marking registers, or, as a substitute for the carbon, a sheet of paper inked by passing slowly between the ink rollers will be found economical.



BY JOHN E. CASHION.

This department receives frequent requests for half-tone overlays and progressive sheets for three-color work. In the future THE INLAND PRINTER will supply cut overlays of suitable subjects at a nominal cost for the time consumed in preparing such work. Pressmen who are anxious to apply specimens to actual work in hand should forward cuts by mail or express. Explanations and answers to inquiries will be sent with all specimens. The work is in charge of an expert who understands and appreciates the different requirements of various subjects.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, \$1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

PHOTOTRICHROMATIC PRINTING.—See Process Engraving.

PRESSWORK.—By William J. Kelly. A manual of practice for printing-pressmen and pressroom apprentices. New enlarged edition. Cloth, \$1.50.

THE HARMONIZER.—By John F. Earhart, author of "The Color Printer." A book of great value to any printer who prints on tinted or colored stock. Cloth, \$3.50.

TYMPAN GAUGE SQUARE.—A handy device for instantly setting the gauge pins on a job press. Saves time and trouble. Made of transparent celluloid. Postpaid, 25 cents.

THE THEORY OF OVERLAYS.—By C. H. Cochrane. A practical treatise on the correct method of making ready half-tone cuts and forms of any kind for cylinder presses. Revised edition, 25 cents.

OVERLAY KNIFE.—Flexible, with a keen edge, enabling the operator to divide a thin sheet of paper very delicately. Blade runs full length of handle, which can be cut away as knife is used. 25 cents.

THE STONEMAN.—By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, \$1 postpaid.

PRACTICAL GUIDE TO EMBOSSEING.—By James P. Burbank. Contains instructions for embossing by the various methods applicable to ordinary job presses, and much information not hitherto accessible. 75 cents.

A CONCISE MANUAL OF PLATEN PRESSWORK.—By F. W. Thomas. A thoroughly practical treatise covering all the details of platen presswork, for the novice as well as the experienced pressman. All the troubles met in practice and the way to overcome them are clearly explained. 32 pages. Price, 25 cents.

SUITABLE INKS FOR BUTTER WRAPPERS.—R. D., Baltimore, Maryland, writes: "Will you kindly publish in the columns of THE INLAND PRINTER what kind of inks to use for best results when printing butter wrappers?" *Answer.*—Inks suitable for printing on glazed or oiled finished paper should be soft, yet quick-drying. These can be obtained from any reputable inkmaker by explaining that they are to be used on stock of that nature. Use hard packing and carry a fairly strong impression for best results.

HOW TO MAKE WHITE INK PRINT WHITE.—J. N. B., Indianapolis, Indiana, writes: "Will you kindly tell me how to make white ink print white; such as is used on dark cover-papers?" *Answer.*—There should not be any difficulty in getting fairly good white if regular cover inks are used. In working white ink on cover-paper, it is advisable to carry as much color as the face of the form will permit and not fill up. The second impression (and this is essential to secure best results) should not be applied until the first color is dry. Do not reduce cover inks if possible to distribute without reducing. When it is necessary to reduce them, use a soft ink as a reducing medium instead of varnish or other materials.

TOO MUCH IMPRESSION ON VIGNETTED CUTS.—M. S. Ptg. Co., Indiana, Pennsylvania, writes: "We enclose herewith a few impressions of a vignetted buggy cut which came into our office recently. We put it on a large press and it printed fine, but that nasty dark line appeared at the bottom edge. We were running three descriptive lines at the bottom and we took them out, cut away all the tympan and the result is as you see on the sample. Should two forms be made of a job like this?" *Answer.*—There is too much impression on the specimen submitted. Cuts of this nature require a very light pressure to print them successfully. In fact, the high lights should be slightly broken when the job is started. It is not necessary to make two forms of a job of this nature when the type and cuts are run in the same color.

METHOD OF UNDERLAYING HALF-TONE CUTS.—H. J. T., White River Junction, Vermont: "Which is the correct way to make ready a half-tone—by underlaying the plate and finishing by overlaying, or to do make-ready on the bottom of a wood base? My employer puts from two to



MONUMENT TO SIR WILLIAM WALLACE, THE SCOTTISH PATRIOT, ON THE ABBEY CRAIG, NEAR STIRLING, SCOTLAND.

four different thicknesses of tissue on the bottom of the base, providing it is low. Supposing the subject to be a cut of a human face, low in a spot on one side of the head. He puts a patch on the bottom of the face to bring that up, and I do not agree with him. I say it has only the effect of bringing up the whole cut and making a rocking base. Will you tell me which is right?" *Answer.*—Considerable judgment should be used when applying underlays, and no attempt should be made toward detail work at the bottom of a mounted plate, as this will only tend to make the plate rock. When a cut is too low to receive a proper inking, it should be brought up flat to type high and the make-ready finished by means of overlaying. To place tissue-paper at

the bottom of a block and expect it to locally affect the face of the cut is erroneous and a waste of time. Quite frequently cuts come to the pressroom in such a poor condition that a mark-out underlay is absolutely necessary in order to obtain a proper impression. But these should be placed between the plate and block and such weak spots as you speak of can be easily built up by this method.

ADJUSTMENT OF THE CYLINDER OF PRINTING-PRESSES.—One of the greatest obstacles to good presswork is the improper adjustment of the cylinder to the bearers. Not infrequently presses are run from day to day with the cylinder riding the type and the cuts—possibly a lead or more off the bearers. This invariably shortens the life of type and vignettted half-tones. Even though the overlay for a form of vignettted cuts may be deftly cut—to the extent of infinitesimal blending of the edges in the first one or two thousand impressions—it will not be long before defined outlines will appear in the margins. The vignette hammer—a destructive tool—was invented by a theoretical pressman in an endeavor to furnish a remedy for flattened edges; but the practical man will look for the causes of these blemishes and correct them by other methods. In most cases where the trouble can not be traced to the make-ready, the fault lies in the improper adjustment of the cylinder to the bearers. The finished journeyman will test the height of the impression on his presses at least once every three months. This should be done also before starting long runs on extra heavy forms,



"AN ARMFUL OF JOY."

by means of the pressman's type-high gage. This is a very necessary tool in the pressroom and it is the only practical thing with which to ascertain the height of the impression with positiveness. There is a long-handled tool of this kind with which this work may be done easily and quickly. Before beginning this work of adjustment, all dirt and grease should be first removed from the rim of the cylinder or cylinder bearers and from the press bed and bed bearers. Move the press to the back center and remove the screws from the bearers which are accessible from the rear of the press. Then run the press to the front center and remove the remaining screws. This done, the press should be moved to the back center to take off the bearers. Clean the bed thoroughly where the bearers lie and then revolve the cylinder forward to the center of the bed, with

the cylinder down, as if to take an impression. The height of the cylinder is determined at this point by placing the type-high gage between the bed and the cylinder bearers. Before going farther into the adjustment of the press, it may be well to say that all machines do not have the same impression mechanism, and on some presses no attention need be given to the steady screws under the cylinder boxes; or to the "jackscrews," as they are called in the pressroom. If the cylinder is too high, loosen these screws and lower them out of the way, and then loosen the check nuts on the lifting rods and bring the cylinder down—slowly at first—on one side and then on the other. Test the height with the type-high gage during each stage of the adjustment. When the cylinder is just type-high, be sure that the check-nuts are tight, and then proceed to raise the steady screws to the cylinder boxes. These screws should be set snugly, but do not force them up. It is essential to test the height once more before moving the cylinder. Exercise great care to maintain a uniform height between press bearers and cylinder bearers on both sides of the press. After the press has been thoroughly overhauled in this manner, it is further necessary to examine the bed bearers to be certain that they are type-high and free from low places. This should be done by placing the type-high gage over the bearers and by moving it slowly from one end to the other. The gage should fit snugly the entire length of the printing stroke. It often occurs that the bearers are worn low. In these cases a strip of manila paper, such as is used for draw-sheets, should be placed under them—enough to bring them up type-high. Use great care in cutting the pattern of this underlay strip. It must be of full width, with holes cut to conform with the screw holes in the bearer. To do this properly, after the paper has been cut to the correct size, lay the sheet over the bottom of the bearer and make a transfer of the screw holes by rubbing the thumb over them. Replace the bearer with its underlay cut, as described, and screw it down firmly. A practice that is most damaging to vignettted cuts, type and bearers, consists of crowding the capacity of the bed with forms that are too large. Cuts are often locked on the bed of the press without a chase to accommodate an extra large sheet. The rear ends of bearers in all presses are reduced slightly in height, and in some presses both ends of bearers are reduced, so that the cylinder is lifted gradually upon them. This clearance also affords freedom of action when the bed reverses. When a form crowds the rear of the bed, the cylinder rests upon the form at this point with its entire weight. It is impossible to preserve the delicate edges of vignettted cuts under these circumstances.

A SUGGESTED REFORM FOR INKMAKERS.—G. C. G., San Francisco, writes: "Printers' ink, being of a fluid nature, its mechanical action, or working property, varies under different climatic and atmospheric conditions, same conditions also affecting the proper working of press rollers; the resulting combination causing many perplexing difficulties for the pressman. Hence, an ink being right and giving good results in one section of the country may prove unsatisfactory elsewhere as taken from the can, and impossible to work unless doped. It is then usually up to the pressman to incorporate the proper dope to make the ink work. The writer has no accurate knowledge of the various formulas of different inkmakers, but he has reason to believe that while the basic pigments may be the same, the oil, varnish, dryer, etc., vary more or less. He has found that Jones's ink, for instance, will stand a given quantity of boiled oil, which, if used in Smith's ink, would kill it. It is the practice of the writer to work his inks as taken from

the can whenever possible, believing that the inkmaker knows his business, but there are times when the ink resembles rubber and obviously requires treatment in order to work it. The treatment may consist of heating the press-room and the machine, or doping the ink, or perhaps both. If one has no facilities for heating up, and the nearest ink-house one hundred miles away and the job must be out, the doping must be commenced right then and there; but we are often more or less in the dark as to what best suits the ink we are working with, unless we have discovered this by previous experience. The point the writer wishes to make is, that there is not, so far as he knows, any one reducer, or dryer, which is just right for everybody's ink. Hence, it is thought that if each inkmaker would specify upon the label of the can the proper reducer and dryer for that particular ink, and the limit of safety in using them, considerable time, worry and spoiled work might be avoided. It seems evident to the writer that the adoption of his suggestion would prove mutually advantageous to inkmakers, pressmen and employers."

SINCE the sale of the extensive plant of the Crowell Publishing Company, Springfield, Ohio, to a New York syndicate, the pressroom equipment, one of the finest and largest in the country, has been changed by substituting rotary web presses for the flat-beds. It is the intention of the new owners to print all of the 1,200,000 a month circulation of their *Woman's Home Companion* and *Farm and Fireside* on rotary presses hereafter, with the exception of the covers of the magazine, which require flat-beds.

MICKY INDORSES SPELLING REFORM.

I've ben calld down a heep uv times sence I've ben at the kase,
An wonce I told that proofroom man I'd like to smash his face.
He sez that I kant spel a bit, er do mutch elce beside,
An that my proofs look like I set um frum a kase awl pide.
But enny how, I spel my woids the way tha ar pronounst,
An if that don't sho comon sence I hope I may be bounst.
I'm glad that Andru Karnegee haz sided in wit me,
An got a lot uv kollige profs to sa that tha agre;
It pruves ovr proofreader is rong, and me exackly rite,
An if he insults me agen tha'll surely be a fite.
He sez that "tung" is alwaz spelt "t-o-n-g-u-e";
Tha haint no kind uv sence in that az enny won kin se;
Fer then "l-o-n-g-u-e" wood be korrekkt fer "lung,"
An such like idiotic waze fer woids like "bung" an "stung."
Tha's lots uv woids, az yous awl no, aint spelt with enny sence;
I'll try to tell yous sum uv em — the list tho iz immens.
"L-e-a-d" is bothersum; wot iz it, "leed" or "led?"
An then "r-e-a-d" is bad; les make it "reed" and "red."
An there is "d-o-u-g-h"; tha tel me it spels "doe,"
But say that "t-o-u-g-h" spels "tuf" insted uv "toe."
An "l-a-u-g-h" tha say 's the rite way to spel "laf";
If that iz so how iz it that "c-a-l-l" spels "caf?"
An woids like "rain" an "rein" an "reign" — les spel em awl the same;
'T wood show good sence to do it in this heer fonetic game.
Then if it's "box" wy haint it "sox"; kin enny body tel?
An then there's "might" an also "mite" — say, wot a way to spel!
I'm jest agoing fer to rite to Andru Karnegee
An tel him hiz reformin' skeem wuz fust thot uv by me.
I spoze he'll say that I'm the won for president, you no,
Uv that fonetik spellin klub hiz munny wil make go.
I bet we bring about reforms far-reechin an immens;
I'll make that proofroom boss uv ourn look wors'n thirty sence;
Fer wen he sees it's me that's rite an him the won that's rong,
To show him whare he gits off at wunt tak me very long.
An wen the boss finds out that I've reformed the spellin-book,
He'll make me proofroom foreman sure, er elce I'm much mistook.

— Monotypit.

WORTH ITS WEIGHT IN GOLD.

I have purchased THE INLAND PRINTER for a number of years and could not be without it. It is worth its weight in gold to all printers.—W. J. Trembath, Plainfield, New Jersey.

J. DUNCAN GLEASON.

In the January, 1897, issue of THE INLAND PRINTER, on page 442, was printed a little sketch regarding Mr. J. Duncan Gleason, a young artist of Los Angeles, then fourteen years old. THE INLAND PRINTER predicted for the young man a prosperous future; and we learn that



J. DUNCAN GLEASON.

after having made a sketch for the San Pedro breakwater, he is now at Manzanillo, Mexico, having been employed by the Harbor Commissioners of that country to make a similar sketch for the reconstruction of the harbor at that place.

AS A reducer, dryer and glosser, this recipe has proved valuable: Copal varnish, sweet oil, balsam copaiba, each 3 oz. Mix thoroughly and let stand for forty-eight hours. Use six to ten drops on the disk for one thousand business cards; other jobs in proportion.—Printer's Register.

DECIMAL weights and measures are in order for Uncle Sam after July 1, 1908, according to Dr. A. G. Bell, who has pointed out that all civilized countries with the exception of the United States and Britain and her colonies have adopted the simpler and more scientific decimal system. By reference to the decimal system of coinage, Doctor Bell has provided convincing instances of the simplification possible with it in the conversion of units, and explained that the United States, when it changed from the old system of pounds, shillings and pence to dollars and cents did not adopt the metric system of weights and measures because the latter, as we know it, did not appear until after the American coinage act of 1792. The facts that our whole system of arithmetic is decimal, that no difficulty whatever is experienced by ordinary workmen in the use of the metric system — provided there is no question of converting their measurements, and that the use of the metric system need not mean the use of new tools — were all clearly explained.



BY O. F. BYBEE.

Editors and publishers of newspapers desiring criticism or notice of new features in their papers, rate cards, procuring of subscriptions and advertisements, carrier systems, etc., are requested to send all letters, papers, etc., bearing on these subjects, to O. F. Bybee, 1881 Magnolia avenue, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, \$1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

CHALLENGE'S LABOR-SAVING RECORDS.—Advertising, subscription, job-printers'. 50 pages, flexible binding, \$1; 100 pages, half roan, cloth sides, \$3, and \$1 extra for each additional 100 pages.

THE STONEMAN.—By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, \$1 postpaid.

STARTING A PRINTING-OFFICE.—By R. C. Mallette and W. H. Jackson. A handbook for those about to establish themselves in the printing business and for those already established. Cloth, 90 pages, \$1.50, postpaid.

GAINING A CIRCULATION.—A book of 60 pages; not a treatise, but a compilation of more than five hundred practical ideas and suggestions from the experiences of publishers everywhere, briefly stated and classified for practical use; a valuable aid. Price, 50 cents, postpaid.

ESTABLISHING A NEWSPAPER.—By O. F. Bybee. Not only a handbook for the prospective publisher, but contains suggestions for the financial advancement of existing daily and weekly journals. Covers every phase of the starting and developing of a newspaper property. Cloth, 114 pages, 50 cents.

PERFECTION ADVERTISING RECORD.—A new and compact book for keeping a record of advertising contracts and checking insertions, suitable for weekly and monthly publications. Each page will carry the account of an advertiser two years. 200 pages, 7 by 11 inches, printed on heavy ledger paper, substantially bound, \$3.50, prepaid.

PRACTICAL JOURNALISM.—By Edwin L. Shuman, author of "Steps Into Journalism." A book for young men and women who intend to be reporters and editors. It tells how a great paper is organized, how positions are secured, how reporters and editors do their work, and how to win promotion. There are chapters on running country papers, avoiding libel, women in journalism, and on the latest methods of big dailies. Covers the whole field of newspaper work, and tells just what the beginner wants to know. Cloth, 12mo, \$1.37, postpaid.

AD. COMPOSITION.—I am glad to criticize ad. composition where the ads. are submitted in suitable condition for reproduction, but where they come to me rolled and creased to such an extent as to not only make reproduction impossible, but to also make it difficult to determine what the ad. would look like when printed on a flat surface, it is then of course impossible to aid any compositor. To secure attention specimens must be mailed flat. The best ads. this month came from Lynn G. Goodnough, of Cornwall-on-Hudson, New York, and R. F. Harris, of the High point (N. C.) *Enterprise*. The latter is inclined to use a little too many heavy rules for underscoring and ornamentation, which frequently overshadows the display and weakens the effect of the ad.

NEWSPAPER CRITICISMS.—The following papers were received, marked "For Criticism," and brief suggestions are made for their improvement:

Auburn (Ky.) *Advocate*.—The italic display you are using in your advertisements is not suitable for newspaper work, neither does it make good heads. The extra condensed is also a poor letter for heads and is not prominent enough for the body letter. In many of the advertisements the body type selected is too large for the display.

Cayes & Turner, Martin, Texas.—The *Hall-Moody Herald* is a good piece of work throughout, although ornaments are a little heavy for the size of page. The display in the advertisement in the Hall-Moody Institute is overshadowed by the rule used for panels.

Wyoming (Ill.) *Messenger*.—Publisher's announcement should be set in a size smaller type than the body of the paper.

Live Coals, Royston, Georgia.—It is a bad practice to double lead the last few lines of columns to make them long enough. The column length should be equal to a certain number of lines without extra leads, and extra leads in broken columns should be placed between the articles.

Republic (Mo.) *Monitor*.—The first two double rules on the first page should be run with the heavy line at the top. Many of the column rules do not show.

Alcester (S. D.) *Union*.—There are three different styles of rules dividing the articles on your first page. One would be sufficient, and it would be better to select the plain one.

RESULT OF CONTEST NO. 19.—THE INLAND PRINTER'S last ad.-setting contest, No. 19, was one of the most successful yet conducted, 242 specimens being submitted by 191 contestants. It was unusual also in that there were practically no freak ads. or strained effects, almost every specimen being a good sensible ad., at least so far as choice of type and rule was concerned. The usual custom of allowing the contestants themselves to act as judges was followed, three points being allowed each ad. selected for first place, two points for second, and one point for third. The list of contestants is too long to give in detail the selections made, but the result and the names and addresses of the leading twenty-five compositors are given below:

Specimen No.	Points.
1 85 Michael Edmeyer, Cannon Falls, Minn.....	81
2 202 Frank J. Wolf, Denver.....	59
3 146 Fred R. Butters, Boston.....	46
4 113 A. E. Schneider, Galesburg, Ill.....	41
5 38 Warren S. Dressler, Philadelphia.....	40
6 37 Warren S. Dressler, Philadelphia.....	39
7 176 Frank Kelsey, Mason City, Iowa.....	39
8 2 F. J. Bloomquist, Kane, Pa.....	32
9 15 William P. Pierret, Muscatine, Iowa.....	31
10 181 Arthur W. Baird, Pittsburg.....	28
11 170 Louis C. Dietrich, Pottsville, Pa.....	25
12 127 A. G. Overton, Mason City, Iowa.....	24
13 182 Arthur W. Baird, Pittsburg.....	21
14 190 O. Proudfoot, Emporium, Pa.....	18
15 64 Orra V. Cleveland, Geneva, N. Y.....	17
16 154 Winfred A. Woodis, Worcester, Mass.....	17
17 17 W. B. Mayes, Whitney, Texas.....	16
18 163 Wayne S. Shantz, Philadelphia.....	16
19 31 H. Irving Harvey, Grand Rapids, Mich.....	15
20 116 C. H. Bowden, Augusta, Maine.....	15
21 145 Eric Peterson, Alta, Iowa.....	15
22 161 Vance R. Noe, Estherville, Iowa.....	15
23 6 Lawrence Wietlisbach, Streator, Ill.....	13
24 126 A. G. Overton, Mason City, Iowa.....	10
25 153 Winfred A. Woodis, Worcester, Mass.....	10
Nine points—Nos. 139, 157.	
Eight points—Nos. 20, 30, 185, 241.	
Seven points—Nos. 39, 42, 83, 140, 200, 216, 235.	
Six points—Nos. 28, 33, 48, 57, 133, 159.	
Five points—Nos. 61, 102, 107, 160, 197.	
Four points—Nos. 25, 29, 36, 47, 81, 93, 129, 169.	
Three points—Nos. 1, 8, 10, 24, 55, 92, 94, 95, 100, 117, 119, 131, 152, 162, 192, 189, 193, 194, 213, 224.	
Two points—Nos. 7, 11, 22, 34, 45, 54, 59, 65, 73, 77, 79, 82, 86, 91, 97, 110, 118, 121, 135, 147, 219, 231, 234.	
One point—Nos. 5, 9, 21, 26, 43, 53, 84, 88, 109, 120, 168, 171, 180, 228, 240.	

It is not customary for one section of the country to carry off a majority of the honors, but in this case thirteen out of the twenty-five leaders are from the one State of Pennsylvania, while Iowa claims six out of the remaining twelve. Another peculiarity is that there are four men among these first twenty-five each of whom has two specimens in this list of leaders. The first of these is Warren S. Dressler, who holds fifth and seventh places with a total of seventy-six points; next is Arthur W. Baird, holding tenth and thirteenth places with a total of forty-nine points; then A. G. Overton, in twelfth and twenty-fourth with thirty-four points, and Winfred A. Woodis, in sixteenth and twenty-fifth with twenty-seven points. Still another unusual feature is that the leading contestant should have so outdistanced all competitors, having almost

Annual Spring Exposition
of the Fashionable

Blanchard Garment

For Men and Young Men

To those discriminating, economical men and young men, who want to be stylishly attired at a moderate cost, we extend a cordial invitation to view our spring display of nobby Blanchard suits and overcoats. We are showing every fabric, pattern and fashion in all the exclusive effects and designs. Our assortment is so complete and choice that we can accurately fit men of every size and proportion to their most becoming style.

James Blanchard
OUTFITTER FOR MEN, WOMEN AND CHILDREN

No. 85.—First place.

Annual Spring
Exposition

OF THE FASHIONABLE
BLANCHARD GARMENT
for Men and Young Men

To those discriminating, economical men and young men, who want to be stylishly attired at a moderate cost, we extend a cordial invitation to view our spring display of

**NOBBY BLANCHARD
SUITS and OVERCOATS**

We are showing every popular fabric, pattern and fashion in all the exclusive effects and designs. Our assortment is so complete and choice that we can accurately fit men of every size and proportion in their most becoming style.

James Blanchard
Outfitter For Men, Women and Children

No. 202.—Second place.

Annual Spring Exposition
OF THE FASHIONABLE

BLANCHARD GARMENT

For Men and Young Men

To those discriminating, economical men and young men, who want to be stylishly attired at a moderate cost, we extend a cordial invitation to view our spring display of nobby Blanchard

Suits and Overcoats

We are showing every popular fabric, pattern and fashion in all the exclusive effects and designs. Our assortment is so complete and choice that we can accurately fit men of every size and proportion in their most becoming style.

JAMES BLANCHARD
Outfitter for Men, Women and Children

No. 146.—Third place.

fifty per cent more points than the compositor in second place. It was no wonder that the contestants, when they came to the point of acting as judges, were greatly divided in opinion, mentioning 115 out of the 241 ads. submitted in making their selections, and under the circumstances it is difficult to understand just why No. 85 was so universally considered the best ad. While it is undoubtedly a neat

arrangement I am inclined to think it was the double panel rather than the choice of display which won for it its laurels. This little ad. has much more of a problem in it than is noticed at first glance, and one which only a few grasped. The "Blanchard Garment" was what was being advertised and must have prominence, of course, but Mr. Blanchard has probably been keeping the "Blanchard Gar-

ANNUAL
SPRING EXPOSITION
of the fashionable

BLANCHARD GARMENT

Our assortment is so complete and choice that we can accurately fit men of every size and proportion in their most becoming style.

For Men and Young Men

We are showing every popular fabric, pattern and fashion in all the exclusive effects and designs.

To those discriminating economical men and young men, who want to be stylishly attired at a moderate cost we extend a cordial invitation to view our spring display of the nobby Blanchard Suits and Overcoats

JAMES BLANCHARD
Outfitter for Men, Women and Children.

No. 113.

ANNUAL SPRING
EXPOSITION

of the Fashionable
Blanchard Garment
for Men & Young Men

To those discriminating, economical men and young men, who want to be stylishly attired at a moderate cost, we extend a cordial invitation to view our SPRING DISPLAY of nobby

Blanchard Suits and Overcoats

We are showing every popular fabric, pattern and fashion in all the exclusive effects and designs. Our assortment is so complete and choice that we can accurately fit men of every size and proportion in their most becoming style.

JAMES BLANCHARD
Outfitter for Men, Women and Children

No. 38.

ANNUAL SPRING
EXPOSITION

of the Fashionable BLANCHARD
GARMENT for Men and Young Men

To those discriminating, economical men and young men, who want to be stylishly attired at a moderate cost, we extend a cordial invitation to view our SPRING DISPLAY of nobby

Blanchard Suits and Overcoats

We are showing every popular fabric, pattern and fashion in all the exclusive effects and designs. Our assortment is so complete and choice that we can accurately fit men of every size and proportion in their most becoming style.

JAMES BLANCHARD
Outfitter for Men, Women and Children

No. 37.

ANNUAL SPRING
EXPOSITION *of the*
FASHIONABLE

**BLANCHARD
GARMENT**

TO those discriminating, economical men and young men, who want to be stylishly attired at a moderate cost, we extend a cordial invitation to view our spring display of nobby Blanchard

**Suits and Overcoats
for Men and Young Men**

We are showing every popular fabric, pattern and fashion in all the exclusive effects and designs.

Our assortment is so complete and choice that we can accurately fit men of every size and proportion in their most becoming style.

JAMES BLANCHARD
OUTFITTER FOR MEN,
WOMEN AND CHILDREN

No. 176.

ANNUAL
SPRING EXPOSITION
OF THE
FASHIONABLE

**BLANCHARD
GARMENT**

FOR MEN AND YOUNG MEN

TO those discriminating, economical men and young men, who want to be stylishly attired at a moderate cost, we extend a cordial invitation to view our spring display of nobby BLANCHARD Suits and Overcoats.

¶ We are showing every popular fabric, pattern and fashion in all the exclusive effects and designs. ¶ Our assortment is so complete and choice that we can accurately fit men of every size and proportion in their most becoming style.

JAMES BLANCHARD
OUTFITTER FOR
MEN, WOMEN AND CHILDREN

No. 2.

ANNUAL SPRING EXPOSITION OF THE FASHIONABLE

Blanchard Garment
For Men and Young Men

TO those discriminating, economical men and young men, who want to be stylishly attired at a moderate cost, we extend a cordial invitation to view our spring display of Nobby Blanchard Suits and Overcoats. ¶ We are showing every popular fabric, pattern and fashion in all the exclusive effects and designs. ¶ Our assortment is so complete and choice that we can accurately fit men of every size and proportion in their most becoming style. :: :: :: :: ::

James Blanchard
Outfitter for Men, Women and Children

No. 15.

ment" before the public all winter, and perhaps much longer; now he is giving his "Annual Spring Exposition." This fact needs particular prominence, almost as much if not more than the Blanchard garment, yet the latter must be kept well to the front. The problem was to give both these the prominence they deserved and at the same time do it artistically and in good balance. I fail to find a single

ad. which just meets these requirements. Vance R. Noe, of Estherville, Iowa, in his No. 160 (reproduced herewith), although it received but five points, grasps the situation, but has made "Exposition" too prominent and "Annual Spring" too small. Mr. Dressler, in his two ads., Nos. 37 and 38, gets the idea more clearly, and his displaying "Blanchard Suits and Overcoats" has points in its favor,

Annual Spring Exposition
of the Fashionable

**Blanchard
Garment**

FOR MEN and YOUNG MEN

To those discriminating, economical men and young men, who want to be stylishly attired at a moderate cost, we extend a cordial invitation to view our spring display of nobby BLANCHARD

SUITS AND OVERCOATS

We are showing every popular fabric, pattern and fashion in all the exclusive effects and designs.

Our assortment is so complete and choice that we can accurately fit men of every size and proportion in their most becoming style.

James Blanchard
Outfitter for Men, Women
and Children

No. 181.

Annual Spring Exposition
— of the —
FASHIONABLE

**BLANCHARD
GARMENT**

TO those discriminating, economical men and young men, who want to be stylishly attired at a moderate cost, we extend a cordial invitation to view our spring display of nobby Blanchard—

**Suits and Overcoats
For Men and Young Men.**

We are showing every popular fabric, pattern and fashion in all the exclusive effects and designs.

Our assortment is so complete and choice that we can accurately fit men of every size and proportion in their most becoming style.

JAMES BLANCHARD,
OUTFITTER FOR MEN,
WOMEN AND CHILDREN.

No. 127.

Annual Spring

Exposition

OF THE FASHIONABLE

**Blanchard
Garment**

FOR MEN AND YOUNG MEN

To those discriminating, economical men and young men, who want to be stylishly attired at a moderate cost, we extend a cordial invitation to view our spring display of nobby Blanchard suits and overcoats.

We are showing every popular fabric, pattern and fashion in all the exclusive effects and designs.

Our assortment is so complete and choice that we can accurately fit men of every size and proportion in their most becoming style.

James Blanchard
Outfitter for Men, Women and Children

No. 160.

as it makes it clearly a men's ad. and puts the display where it will balance better. Yet there is more tone and more of a trade-mark in the expression "Fashionable Blanchard Garment," which should not have been lost. However, this contest, while it may not have developed the best possible ad. from the copy, has certainly been an instructive one—probably one of the most helpful in the series. I am glad to be able to show herewith the photographs of the leading contestants and publish the following brief biographical sketches:

Michael Edmeyer was born in Hengersburg, Bavaria, Germany, in 1887, and came to St. Paul, Minnesota, with his parents when two years old. His first work as a printer was in the Riverside office in Red Wing, Minnesota, in 1900. In 1904 he moved to Cannon Falls, in the same State, and when *Lewis' Ledger* was started, shortly after, he accepted the position of foreman in the job printing department, being then but seventeen years of



MICHAEL EDMAYER.



FRANK J. WOLF.



FRED R. BUTTERS.

age. His employer at once saw that young Edmeyer had a natural talent for executing fine jobwork and encouraged him in applying his time and talent to the art.

Frank J. Wolf was born in Sidney, Nebraska, in 1885, his parents moving to Denver, Colorado, in 1890, where he has since resided. He has just finished his apprenticeship in the office of the Great Western Publishing Company.

Fred R. Butters was born in Kasota, Minnesota, in 1869, but has lived in New England since infancy. His first work at the trade was in the office of the *Merimac (Mass.) Budget*, when he was thirteen years of age. For five years he was assistant foreman of the *Manchester (N. H.) Mirror and American*, which position he left to accept one in the ad. department of the *Boston Herald*, where he is at present employed. He is married and has one child.

Another contest, No. 20, will be announced next month, one which it is hoped will prove even more helpful than any which have preceded it. W. B. Mayes, of the *Whitney (Tex.) Messenger*, who finished seventeenth in this contest, has suggested the copy, and his plan will be fully explained in July.

RATE CARD FOR CANADA.—Advertising rates in Canada are much lower than they should be, as the following request would indicate:

Mr. O. F. Byrbee, Chicago, Ill.: LUNENBERG, N. S., March 29, 1906.

DEAR SIR,—We would like you to furnish us a rate card for advertising, starting at 50 cents an inch one insertion, \$5 for the year, and about \$80 for one column one year. We enclose postal note for \$1. We would also like a rate for open space contracts, and price for readers by the line or word. Our columns are 21¾ inches; circulation 2,400 weekly. We have gone over the rate cards published in *THE INLAND PRINTER* and found the prices too high for this locality. To graduate them on the scale given above is too big a task for us.

Yours respectfully,

PROGRESS-ENTERPRISE COMPANY.

To this request the following reply was sent by mail:

Progress-Enterprise, Lunenburg, N. S.:

GENTLEMEN,—I am in receipt of your favor of March 29 and take pleasure in complying with your request for a rate card. I have graded the prices very carefully, but found it very difficult to grade the card down from 50 cents to \$5 so quickly, and still not go below the \$80 at the end:

	1 wk.	2 wks.	3 wks.	1 mo.	3 mos.	6 mos.	1 yr.
1 inch	\$.50	\$.65	\$.80	\$.95	\$ 2.00	\$ 3.30	\$ 5.60
2 inches .....	.65	.95	1.20	1.45	3.30	5.60	9.75
3 inches .....	.80	1.20	1.60	1.90	4.45	7.70	13.75
4 inches .....	.95	1.45	1.90	2.30	5.60	9.75	17.75
5 inches	1.10	1.70	2.20	2.70	6.65	11.75	21.50
6 inches	1.20	1.90	2.50	3.10	7.70	13.75	25.00
8 inches	1.45	2.30	3.10	3.85	9.75	17.75	32.50
11 inches	1.80	2.90	3.90	4.90	12.75	23.25	43.00
21¼ inches	2.85	4.85	6.65	8.40	23.00	42.50	80.00

OPEN-SPACE CONTRACTS.

1 inch	\$0.50
5 inches .....	.25
10 inches .....	.18
25 inches .....	.15
50 inches .....	.12
100 inches .....	.10
250 inches .....	.08
500 inches .....	.07½
1,000 inches .....	.07

READERS.

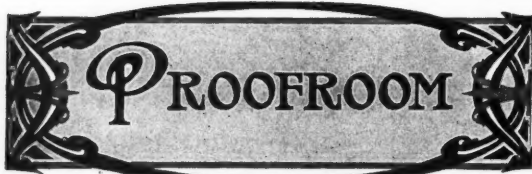
1 line	\$0.10
100 lines .....	.08
500 lines .....	.06
1,000 lines .....	.05

You will note that the reduction from 50 cents for one inch down to a little less than 10 cents an inch for fifty-two inches is very rapid, while from this point to 1131 (one column one year) at 7 cents there is only a drop of 3 cents. I could not strike the \$5 exactly, but of course you can make the figure even money arbitrarily if you desire. The rates for open-space contracts conform to the card. I have divided these into an unusual number of different contracts, but you can simply omit any that you do not desire to use without affecting the other figures. The prices for readers may be a little high for your locality, but these you can easily adjust to meet your requirements.

Yours very truly,

O. F. BYRBEES.

While the rates here given are much lower than a paper of 2,400 circulation should be able to secure, local conditions are frequently such that it is impossible to obtain better prices. This card, therefore, may be found of value to many papers similarly situated, not only in Canada, but in the United States as well.



BY F. HORACE TEALL.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on **THE INLAND PRINTER'S** list of available employees. Registration fee, \$1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

PUNCTUATION.—By John Wilson. For letter-writers, authors, printers, and correctors of the press. Cloth, \$1.

PENS AND TYPES.—By Benjamin Drew. A book of hints and helps for those who write, print, teach or learn. Cloth, \$1.25.

BIELOW'S Handbook of Punctuation gives full information regarding punctuation and other typographical matters. Cloth, 50 cents.

ENGLISH COMPOUND WORDS AND PHRASES.—By F. Horace Teall. A reference list, with statement of principles and rules. Cloth, \$2.50.

PUNCTUATION.—By F. Horace Teall. Rules have been reduced to the fewest possible, and useless theorizing carefully avoided. Cloth, \$1.

COMPOUNDING OF ENGLISH WORDS.—By F. Horace Teall. When and why joining or separation is preferable, with concise rules and alphabetical lists. Cloth, \$1.25.

TYPOGRAPHIC STYLEBOOK.—By W. B. McDermutt. A standard of uniformity of spelling, abbreviating, compounding, divisions, tabular work, use of figures, etc. Vest-pocket size. Leather, 76 pages, 50 cents.

THE ORTHOEPIST.—By Alfred Ayres. A pronouncing manual, containing about 4,500 words, including a considerable number of the names of foreign authors, artists, etc., that are often mispronounced. Revised and enlarged edition. Cloth, 18mo, \$1.34, postpaid.

THE VERBALIST.—By Alfred Ayres. A manual devoted to brief discussions of the right and wrong use of words, and to some other matters of interest to those who would speak and write with propriety. Includes a treatise on punctuation. Cloth, 4 1/2 by 6 1/2, \$1.32, postpaid.

VEST-POCKET MANUAL OF PRINTING.—A full and concise explanation of all the technical points in the printing trade, including chapters on punctuation, capitalization, style, marked proof, corrected proof, proofreaders' marks, make-up of a book, imposition of forms. Leather, 86 pages, 50 cents.

ONE HUNDRED AND THIRTY-FIVE THOUSAND WORDS SPELLED AND PRONOUNCED.—By John H. Bechtel, author of "Handbook of Pronunciation," "Synonyms," "Slips of Speech," etc. For practical needs of busy people and for quick reference this book will be found invaluable. 614 pages; cloth, \$2; leather, \$2.50, postpaid.

PROOFREADING AND PUNCTUATION.—By Adèle Millicent Smith. A manual of ready reference of the information necessary in ordinary proofreading, with chapters on preparing copy, reading proof, typesetting, sizes and styles of types, typesetting, jobwork, paper, technical terms, reproductive processes, etc. Cloth, 183 pages, \$1.

CORRECT COMPOSITION.—By Theodore Low De Vinne. Second volume of the series on "The Practice of Typography." A treatise on spelling, abbreviations, compounding, division, proper use of figures and numerals, italic and capital letters, notes, etc., with observations on punctuation and proofreading. Cloth, 12mo, 476 pages, \$2.14.

GRAMMAR WITHOUT A MASTER.—By William Cobbett, carefully revised and annotated by Alfred Ayres. For the purpose of self-education this book is unrivaled. Those who studied grammar at school and failed to comprehend its principles, as well as those who have never studied grammar at all, will find it especially suited to their needs. Cloth, 4 1/2 by 6 1/2, \$1.07, postpaid.

THE ART OF WRITING ENGLISH.—By J. M. D. Meiklejohn, M. A. A manual for students, with chapters on paraphrasing, essay-writing, précis-writing, punctuation, etc. Analytical methods are ignored, and the student is not discouraged by a formidable array of rules and formulas, but is given free range among abundant examples of literary workmanship. The book abounds in such exercises as will impel the student to think while he is learning to write, and he soon learns to choose between the right and wrong in linguistic art and expression. Cloth, 12mo, \$1.50.

COMMAS AND SENSE.—W. F. D., Salem, Oregon, writes: "Herewith find copy of a blank containing, among other things, a non-mineral affidavit in which are found two statements concerning the non-mineral character of the land. The first reads 'that to his knowledge there is not within the limits thereof any vein or lode of quartz,' etc.; the second reads 'that there is not within the limits of the land, to his knowledge, any placers,' etc. A contends that these statements are practically identical in meaning; that the affiant does not know from surface indications that there is any mineral upon the land. B admits the correctness of A's position as to the first statement, but holds that the commas before and after 'to his knowledge,'

in the second statement, makes the affiant swear that he knows absolutely that there is no mineral of the character described, from the surface of the earth to the center. The copy for the affidavit was prepared in the General Land Office at Washington. The argument was started by B making the assertion that no man could make final proof on a piece of Government agricultural land without committing perjury, for no man knows what is between the surface of the earth and the center thereof." *Answer.*—A safe presumption in such a case is that the Government will not prepare an affidavit that will make a man commit perjury. In fact, it may even be questioned whether perjury could possibly be committed by swearing to the affidavit, with honest intention, even if its words actually expressed something that could not be true. The paper undoubtedly is prepared with a serious purpose, and not as a trap for the unwary. It may safely be presumed, also, that the Government is as well aware as any one how much a man may know of what is in the earth. No man should make such assertions as that one about perjury without being reasonably sure that he is right, and it would be good policy to assume that, if he does not immediately perceive the expression to be correct, it is not sure to be because it really is incorrect, but may only seem so to him because of some hitch in his understanding. Much adverse criticism is uttered through haste in coming to a conclusion, when a little thought and study would show the criticism to be unjust. The commas in question in this instance have no such effect as the one suggested. What is meant in both statements is equally well and clearly said in each, and they are not practically identical, and the commas are properly used in the second because of the change in construction. In the first clause the affiant says that he does not know that there is any "quartz or other rock bearing gold, silver, cinnabar, lead, tin, or copper," and in the second that he does not know that there is any "placer, cement, gravel, phosphate, or other valuable mineral deposit." No careful reader could say that these two clauses are identical, for they have all the difference there is between the different things named. In each case "to his knowledge" means so far as he knows, and is equivalent to saying that he does not know, and implies that he has examined the land and did not find any mineral. This question would not be worth anywhere near all this space except for the principle involved. Many sentences are so constructed that commas may or may not be used, with practically equal propriety. Many people prefer to have a long sentence relieved of its unbroken continuity by points, even if the points are not necessary for clearness. Proofreaders should be very careful to get commas in where they are necessary to show the intended sense, and equally careful not to have them where they make the writing mean something not intended; but in cases like the one here considered it really makes no difference whether they are in or not.

A DIVISION.—L. F. S., Meridian, Mississippi, asks a question I had never thought possible, as follows: "How would you divide the word 'Scottish,' in 'Scottish Rite'?" Also, please point out the error in the sentence, 'Meeting called for March 14th, 1906.'" *Answer.*—There is only one possible way to divide the word, and that is exactly in the middle. It is the word "Scot" with "ish" added, an extra *t* being inserted because of the accent on the first syllable. Such extra letters always go with the suffix, the part added. The sentence contains no error. Such dates are almost always printed "March 14, 1906," but not always, nor is it the only right way. But in an office having a rule that such dates must be one way, of course the other way is wrong.

*Cincinnati Museum
of Fine Arts*

**Fifteenth Annual
Exhibit *of the* Cin-
cinnati Art Club**

Comprising Work Done in Oil
and Water-color During the Past
Two Years, Both in This Country
and Abroad, by Club Members



Caslon and Caslon Italic
Made by
INLAND TYPE FOUNDRY
Saint Louis

Programme of the Seventh Annual Concert

To be given by the
Evansville Amateur
Musicians' Society
At Fullerton Hall, on
the Sixteenth of June,
at Eight-thirty o'clock p. m.

This entertainment will be
repeated on the afternoon of
July 4 at Handel Hall, for
the benefit of the Evansville Home
for Destitute Crippled Children.

P R O G R A M M E

- Overture, "William Tell" - Rossini
Evansville Orchestra
- Vocal Solo, "Dreams" - Braden
Miss Elsie Smith
- Cornet Solo - - - Selected
Mr. James Harris
- Quartette, "In Long Ago" - Harris
Lyceum Quartette
- Duet - - - - - Selected
Miss Smith and Mr. James
- Selection from "Il Trovatore" - Verdi
Evansville Orchestra
- Vocal Solo, "Summer Days" - Lynde
Miss Elsie Smith

Evansville Orchestra--Harry M. Goodman, James
R. Price, Silas Washburne, John L. Fitzpatrick,
Harrison Thamer, Wesley Brown, John Smith.
Lyceum Quartette--Miss Harriet Emery, Soprano;
Miss Ruth Bonday, Alto; Mr. Julian M. Stutes,
Tenor; Mr. Harrison G. Endicott, Basso.

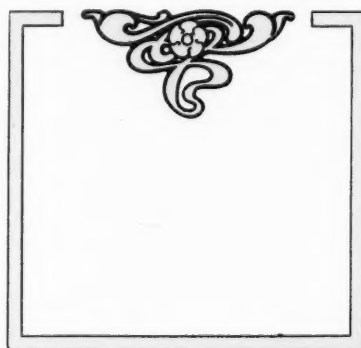
Program



- Schumann--Traumerei and Romanza
- Buck--Scherzo (1st Sonata)
- Lynes--Christmas Song
- Westey--Largo, F Sharp Minor
Mr. Albert Homer
- Rossini-Buck--Overture
- Guilmant--Dreams (7th Sonata)
- Raff--March, Leonore Symphony
Mr. Albert Homer
- Schumann--Nocturne
- Rubenstein--Melody in F

Organ Recital

By Mr. James H. Stone
Assisted by Mr. Albert Hood
Saturday Evening, May 1
at Eight o'clock, in the East
Side Baptist Church, Aurora





The Hayes Motor Cars

1906 Catalogue

Hayes & Company
Chicago

Dorsey Series in display
Made by
INLAND TYPE FOUNDRY
Saint Louis

Established 1882

Minnesota Safe Deposit and Trust Company

Minneapolis : Minnesota

☛ Capital, surplus and profits over three million dollars. ☛ Total assets over ten million dollars.

Kenilworth, Kenilworth Italic, Avil and
Burford Initial in display
Made by
INLAND TYPE FOUNDRY
Saint Louis

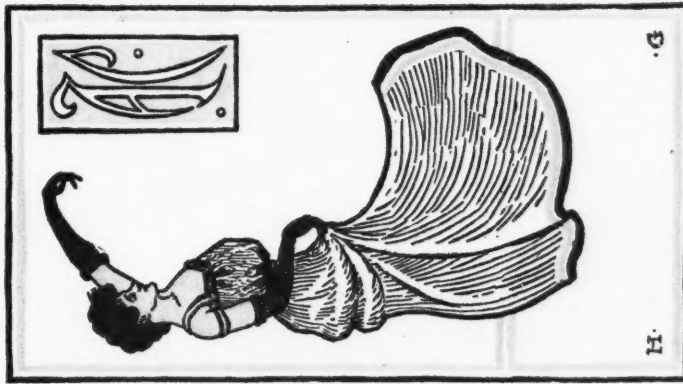
Trust Companies Their Usefulness



TRUST Companies are the latest and highest development in the evolution of the business world, and, when properly managed, are a great benefit to mankind. The measure of service which a well-regulated Trust Company can extend to a community has not yet been fully recognized by most people. It teaches the poor to save, manages the affairs of minors, widows and incompetent persons, makes investments for those who are well-to-do, and acts as executor of wills and administrator of estates. In numerous other ways the Trust Company performs services which make it indispensable to the public. With the security provided by ample capital, the certainty of continued corporate existence, and management perfected by experience and supervised by the courts, it can well be said of Trust Companies that they afford abundant safeguards against the many accidents, contingencies and uncertainties necessarily incident to trusts when administered by individuals.

The foremost obligation resting upon an individual who is possessed of property is to make a will. Any person who has thoughtfully observed the difficulties and injustice which so

INFORMAL



The Athelstan Club
Atlanta, Georgia v Tuesday
Evening, May 25, 1906, at 8:30

*Design and Lettering by H. E. Gage,
Inland Printer Technical School.*

rogram
of a con-
cert by the
Athelstan Club
Dover

*Hand-Lettered by W. Stevens,
Inland Printer Technical School*

Department of
Oratory A. C. J. S.

An Evening With Dickens

Assisted by the Orchestra and
Department of Physical Culture



Monday Evening, February
26th at 7:45

Competition by C. M. Shelton, Island Prisoner Technical School.

The Pirates of Perzance



A Comic Opera

in Two Acts by Gilbert &
Sullivan, *Under the Di-
rection of William Holmes.*

*Benefit of the Day Nursery
of Plainfield, New Jersey.*

Friday Evng,
October 21, 1906

New Plainfield Theater
Frederick Counihan, Manager

Hand-Lettered by H. L. Gage,
Island Prisoner Technical School



Under this head will appear each month suggestive analysis and criticism of reproduced and reset specimens of job composition, answers to queries and notes of general interest to job-printers. Address all communications and specimens for criticism in this department to The Inland Printer Company.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, \$1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

VEST-POCKET MANUAL OF PRINTING. 50 cents.

SPECIMENS OF BUSINESS CARDS AND TICKETS—sixteen-page booklet—25 cents.

SPECIMENS OF ENVELOPE CORNER CARDS—twenty-four-page booklet—25 cents. New second edition.

MODERN LETTERPRESS DESIGNS.—A collection of designs for job composition from the *British Printer*. 60 cents.

SPECIMENS OF LETTER-HEADS.—Modern typework, printed in one, two and three colors and with tint-block effects. 50 cents.

MENUS AND PROGRAMS.—A collection of modern title-pages and programs, printed on cloth-finished and deckle-edge papers. 50 cents.

AMERICAN MANUAL OF TYPOGRAPHY.—New enlarged edition. 180 pages, heavy cover, cloth back, gold stamp, gilt top, 24 chapters. \$4.

IMPRESSIONS OF MODERN TYPE DESIGNS.—Thirty pages, 6 by 9, in colors, paper cover. Published to sell at 50 cents; reduced to 25 cents.

BERAN: SOME OF HIS WORK.—Contains over one hundred demonstrations of combining art with the practical in commercial printing. 148 pages, 9 by 12. \$3.

SPECIMENS OF BILL-HEADS.—Contains suggestions that are applicable to every-day requirements; in one, two and three colors, on a variety of colored papers. 25 cents.

LECTURES FOR APPRENTICES.—Reprinted from THE INLAND PRINTER. Comprises General Work, Commercial Work and Stonework. 56 pages, fully illustrated, 10 cents.

THE STONEMAN.—By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, \$1, postpaid.

ART BITS.—A collection of proofs selected from odd issues—half-tones, three-color prints, engravers' etchings, etc.—neatly mounted on harmonious mats of uniform size, twenty-five selections in a portfolio. Price, 50 cents, postpaid.

TITLE PAGES.—By Theodore Low De Vinne. Third volume of the series on "The Practice of Typography." Treats the subject from three standpoints—Historical, Practical and Critical. Copiously illustrated. Cloth, 12mo, 485 pages, \$2.

TWENTIETH CENTURY COVER-DESIGNS.—Contains essays on cover-designing by well-known experts, and many specimens of modern covers, printed in colors, on different kinds and shades of color stock. A beautiful piece of typography. \$5, prepaid.

PLAIN PRINTING TYPES.—By Theodore Low De Vinne. First volume of the series on "The Practice of Typography." A treatise on the processes of typesetting, the point system, the names, sizes, styles and prices of plain printing types. Cloth, 12mo, 403 pages, \$2.

THE PRINCIPLES OF DESIGN.—By Ernest Allen Batchelder, Instructor Throop Polytechnic Institute, Pasadena, California. Handsomely printed and illustrated. Indispensable to the artistic job compositor, as expounding the underlying principles of decorative design and typography. 250 pages; cloth, \$3.

CORRECT COMPOSITION.—By Theodore Low De Vinne. Second volume of the series on "The Practice of Typography." A treatise on spelling, abbreviations, compounding, division, proper use of figures and numerals, italic and capital letters, notes, etc., with observations on punctuation and proof-reading. Cloth, 12mo, 476 pages, \$2.

MODERN BOOK COMPOSITION.—By Theodore Low De Vinne. Fourth volume of the series on "The Practice of Typography." A thoroughly comprehensive treatise on the mechanical details of modern book composition, by hand and machine, including valuable contributions on Linotype operating and mechanism. Cloth, 12mo, 477 pages, \$2.

HINTS ON IMPOSITION.—By T. B. Williams. This book is a thoroughly reliable guide to the imposition of book forms, and shows, in addition to the usual diagrams, the folds of the sheet for each form, with concise instructions which may be readily understood. Several chapters are devoted to "making" the margins, and this feature alone is well worth the price of the book. Full leather, 4 by 6 inches, flexible. \$1.

PORTFOLIO OF SPECIMENS OF PRINTING.—The second of the series, composed of a wide range of commercial work in pure typography, designed to show the maximum of effectiveness at the minimum of time and expense. Printed on loose leaves and comprises examples of plain and color printing; also a demonstration of the relationship between the size of the half-tone screen and various grades of paper. This portfolio is especially recommended to students and ambitious printers. Price, \$1, postpaid.

THE typographical design and arrangement of a program is subject to much variation, and for that reason furnishes endless possibilities for the display of originality on the part of the compositor. On the initial page, especially, one ordinarily expects to find something attractive and artistic—something removed from the regular line of commercial work. In a great many instances this desire for work more than ordinarily attractive is shown in the use of the elaborately colored and embossed program covers furnished by the paper houses. These leave small opportunity for the efforts of the printer, however, and in many cases the pink cupids and other "artistic" conceptions which grace these stock covers are entirely out of harmony with the faces of type that under normal circumstances are at his disposal.

The quantity printed on the average order for programs is comparatively small, and therefore the use of two or more colors or the printing of the type matter on smooth-finished stock and tipping it on heavy, rough cover-paper is not made prohibitive by the added expense. This latter method of treating a program cover will in most cases result in a pleasing appearance. The prices received for this class of work are not as arbitrary as those received for the regular run of commercial work, and this gives the printer an opportunity to produce something stamped with his individuality.

The use of ornamentation in a program is a thing which should be given careful consideration. The decorative design appropriate for a dance program would be entirely out of harmony with the program for a Sunday-afternoon organ recital, yet this lack of appropriate ornamentation is in evidence on much of the work of this class being turned out. In programs for church celebrations of Christmas or Easter, the use of a text-letter is very appropriate, this being the form of letter generally accepted as being in keeping with ecclesiastical work. Black and red, or red-orange, are the most commonly used colors for this class of work, while for the ordinary program the softer shades and tints give more pleasing results, the use of the harmony of a tint and a shade of a color being very satisfactory. The ability to do hand-lettering, with the occasional designing of an ornament, monogram or initial letter, is valuable to the printer who strives to give a distinctive quality to his productions. In the accompanying insert of program covers, all of which are the work of students in the Inland Printer Technical School, this is well illustrated in the covers for the "Apollo Club," "Pirates of Penzance" and "Informal" programs. In the lettering on the "Apollo Club" specimen is found a certain richness of appearance which can not be produced by the use of type, the color of a lettered panel being much better. The scroll at the bottom of the lettering is thoroughly in harmony with the style of letter used, and is much more pleasing than anything which could be found in the average collection of stock cuts and ornaments. The "Pirates of Penzance" specimen shows a combination of hand-lettering and type, with the use of a stock ornament appropriate to the subject. The dance program is exceptionally attractive, both in lettering and design, for an initial page of this sort, the club monogram adding not a little to the general appearance. The free use of the lettering gives an informal effect quite in keeping with the title and utterly impossible where the conventional type-face is used.

This freedom and grace in hand-lettering, combined with the possibility of producing ornamentation or a monogram suitable for any occasion or any subject, place the printer who uses them in a position to turn out work which soon places him in the "something different" class, a status which every printer strives for.

AN IDEA FOR WINDOW CARDS.

BY D. EDWIN KIMBALL.



HE printer is very often confronted with the problem of getting out an attractive window card for an entertainment of some nature at a necessarily small outlay. When it is possible, he of course has a drawing made and puts out a charming poster, but the point here is to get something almost as striking at less expense.

Very often a half-tone or zinc etching can be procured bearing in some degree on the subject of the advertisement. For example, in the case of the Y. M. C. A. basket-ball card this was the fact. The illustration had been made by one of the members some time before, and the association had had the cut made. It is seldom that such a cut

of illegibility in using this style. The "Follies" poster shows this treatment. The single word "Follies" required no second reading to be comprehended, and the full message of the window card was read without hesitation because the first glance was so invitingly easy. The text-letter was the natural one for the "Messiah" poster on account of its ecclesiastical nature. The holly was appropriate for the Christmas season. A greater leeway is possible in athletic window cards — a stern, bold letter is often appropriate, as in the case of the Y. M. C. A. poster. A more graceful title is shown in the heading for the poster designed for the "Dedication of Northwestern Field." On a window card which advertises a series of lectures, legibility can be risked more safely than on one which tells of a single event. The supposition in the case of such a card as that for "The



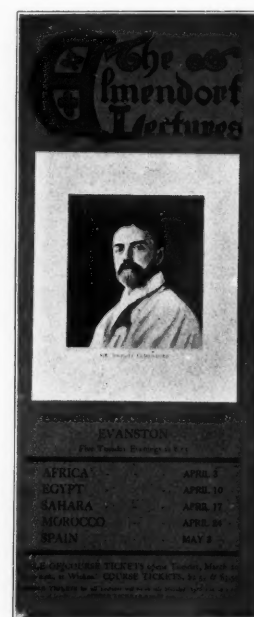
ORIGINAL 9½ BY 22½.



ORIGINAL 9% BY 22½.



ORIGINAL 9% BY 22%.



ORIGINAL 9% BY 21%.

will be found large enough to make of itself a complete window card. One method which has been found very successful is to print the illustration separately on coated paper and then tip it on a colored photo mount. This gives the picture a setting of its own, and really makes a half-tone of thirty square inches do the work of one of a hundred — no small consideration when the cost must be carefully counted. The mount acts in a measure as a frame for the drawing and secures to the whole card the certainty of a more than passing glance.

Instead of using an ordinary type arrangement for the balance of the window card, it adds a distinctive value to have the display line worked out by the artist. This adds also somewhat to the expense, but results in having a window card fairly in a class of specially designed posters.

The treatment of this title line is an interesting problem, and many considerations must be carefully weighed before it is settled. Each window card is naturally a separate and complete study in itself, and must be worked out as best suits its own needs. If the title line is short — a single word, for example — a heavy text-letter is not bad. Being short and therefore easy to read, there is no danger

"Elemendorf Lectures" was that an attractive title should be made and by its very attractiveness compel observation and lasting remembrance. The colors of the printing carried out the missal effect and reports of the results of advertising by this means have confirmed the suppositions on which it was designed.


The use of the dark photo mounts for the window cards requires much care in the printing, as few of them can be made to show a good color effect in a single printing. Especially where light and bright colors are used it is necessary to run twice or three times through the press. The "Follies" poster is an exception, as in that case the class color, blue, was used alone — a light-blue mount, printed in dark bronze-blue and the tip-on printed in blue double-tone. At least a ten-ply board should be used, since the cards must be able to stand in the windows without bending.

The variety in which such window cards can be made up is limitless and depends solely on the ingenuity of the printer. Their cost does not come close to the cost of specially designed posters, while in effect they are on very nearly the same footing.

**The
Messiah**

**EVANSTON
MUSICAL
CLUB**

Thursday
Dec. 21



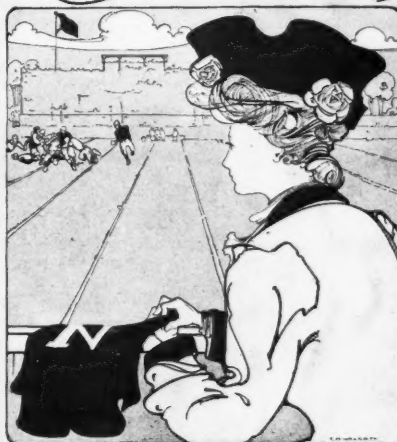
First M.E.
Church

George Hamlin *Tenor* Rose Lutiger Gannon *Contralto*
Helen Buckley *Soprano* Frederic Martin *Bass*

Admission one and a half dollars, December 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 1905.

ORIGINAL 14½ BY 21½.

DEDICATION Northwestern Field *Northwestern-Beloit* Saturday October 14, 1905



ORIGINAL 14 BY 22.

**English Chorals
and Part Songs**

**EVANSTON
MUSICAL
CLUB**

Thursday, February 22

FIRST M.E. CHURCH

Drumo Strindel, Cellist

SEATS NOW ON SALE AT WICKES'

PRINTED BY THE INLAND PRINTER, CHICAGO, ILL.

ORIGINAL 14 BY 22.

Written for THE INLAND PRINTER.

TWO AUCTIONS.

BY A. CAMPBELL.

"Bid high! Bid high!" said the auctioneer,
 "What will you give me for what I have here?
 A book so rare,
 Beyond compare.
 A thousand years old if it is a day.
 Ten dollars? Do you want me to give it away?
 Fifteen; twenty; twenty-five;
 Thirty-five; forty. Sakes alive!
 A book so old
 Should not be sold
 For a price like that; a relic this!
 A chance you can not afford to miss!"

Thus the garrulous auctioneer
 Spurred on the crowd with jest and jeer;
 And the musty old book whose only worth
 Lay in the fact that its date of birth
 Was ages and ages and ages away
 Sold for a fabulous sum that day.

"Bid low! Bid low!" said the financier.
 "How much will you charge to print this job here?
 Sixty dollars, eight cents?
 Why, that is immense!
 Such prices as that I can not pay!
 I'll ask some more printers and see what they say.
 Fifty-five; forty; thirty-five;
 And Jones says twenty; sakes alive!
 I knew that I,
 If I'd but try
 Could get a low price. A cinch like this
 I surely can not afford to miss!"

Thus the wealthy financier
 Sought the printers far and near
 For a price on a job for which paper and ink
 Would cost about fifty dollars, I think.
 And thus are the jobs to which profits belong
 Ruffled away for almost a song.



BY EDEN B. STUART.

Under this head will be discussed ideas from all classes of printers, rich or poor, large or small, prominent or obscure, so long as their ideas are of practical value and along this particular line of work. Do not hesitate to consult this department on any problem of estimating that may arise. Printers are urged to forward particulars of any work that will prove of interest and assistance to the trade and to the sender. Address all communications to The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

HINTS FOR YOUNG PRINTERS UNDER EIGHTY.—By W. A. Willard. A discussion of the cost of printing. 50 pages, paper, 50 cents.

EMPLOYING PRINTER'S PRICE-LIST.—By David Ramaley. New edition, based on nine-hour day. An excellent book to use as a basis for correct prices to charge on any kind of printing, \$1.

CHALLENGE'S LABOR-SAVING RECORDS.—Advertising, Subscription, Job Printer's. 50 pages, flexible binding, \$1; 100 pages, half roan, cloth sides, \$2, and \$1 extra for each additional 100 pages.

FUNDAMENTAL PRINCIPLES OF ASCERTAINING COST OF MANUFACTURING.—By J. Cliff Dando. The scope of this book is indicated by the title. Has been unqualifiedly indorsed by users throughout the world. \$10.

ORDER BOOK AND RECORD OF COST.—By H. G. Bishop. The simplest and most accurate book for keeping track of all items of cost of every job done. Contains 100 leaves, 10 by 16, printed and ruled, and provides room for entering 3,000 jobs. Half-bound, \$3. Must be sent by express at expense of purchaser.

CAMPBIE'S VEST-POCKET ESTIMATE BLANK-BOOK.—By John W. Campsie. By its use there is no chance of omitting any item which will enter into the cost of ordinary printing. By its use a proper profit can be made on every job taken. Used by solicitors of printing in some of the largest offices in the country. 50 cents.

STARTING A PRINTING-OFFICE.—By R. C. Mallette. Contents: The Printer as a Business Man, Selection and Location of Plant, The Business Office, The Composing-room, The Pressroom, Light, Power and Heat, The Stockroom, The Book of Samples, Entering the Order, The Job in Process, Determining Cost, Bookkeeping, Preparing and Giving Estimates, Collections and Payments, Advertising and Office Stationery, Employer and Employees, Small Economies and Time-savers. 88 pages, cloth, \$1.50.

PRINTER'S ACCOUNT BOOK.—A simple, accurate and inexpensive method of job accounting that is in use by hundreds of prosperous printers. It shows cost of each job, what should be charged for it, what profit should be made on it, what profit is made. Flat-opening, 10½ by 14½ inches, substantially bound, with leather back and corners; 400 pages, 2,000 jobs, \$5; 200 pages, 1,000 jobs, \$3.50. Specimen page and descriptive circular on application. Must be sent by express at expense of purchaser.

PRINTERS' INSURANCE PROTECTIVE INVENTORY SYSTEM. by Charles S. Brown. A blank-book 11½ by 15 inches, with printed headings, superfine paper, special ruling. It is a classified and perpetual inventory system, and informs you of your plant value every hour of the day, every day of the week, every week of the month and every month of the year. No. 1, loose-leaf, for large job or newspaper offices, \$25; No. 2, for newspaper offices only, \$15; No. 3, for job offices only, \$15; No. 4, for small job and newspaper offices, \$10.

NICHOL'S PERFECT ORDER AND RECORD BOOK is one of the most useful record books for printers running offices of moderate size that has ever been published. It serves both as an order book and a journal, no journalizing being necessary, making a short method of bookkeeping. By using this book you can learn at a glance whether orders are complete, what their cost is and if they have been posted. Once entered in this book, it is impossible to omit charging an order. Size, 9 by 12 inches; capacity, 3,000 orders; \$3. Must be sent by express at expense of purchaser.

A MONEY-MAKING SYSTEM FOR THE EMPLOYING PRINTER.—By Eden B. Stuart. Contains chapters on: The Value of System, The Job Envelope, Individual Composing-room Ticket, Stock-cutting Order, Pressroom Job Ticket, Individual Press Report, Bindery Time Job Ticket, Bindery Job Report, Office Job Ticket, Individual Bindery Ticket, Pressroom Job Record, Presswork Record, Job Cost Record, Order Blanks, Enclosure Slip Estimate Memorandum, Pay Ticket, Daily Financial Report, Requisition Sheet, Bookkeeping, Perpetual Stock Balance Sheet, Profit and Loss Statement, Summary of Uncompleted Work, Stock Used Check, etc. Cloth, \$1.

HOW TO MAKE MONEY IN THE PRINTING BUSINESS.—By Paul Nathan. Contents: The Printer as a Business Man, Starting an Office, What Class of Customers to Seek, How to Develop Business, Writing Advertising Matter, Taking Orders, Advertising, How to Talk to Customers, Cost of Producing Printing, Estimating, Acquiring Money, Pricecutting, Competitors, Profit and How It Should Be Figured, Buying, Doing Good Printing, Composing-room, Pressroom, Business Office, Bookkeeping, Management of Employees, The Employee's Opportunity, Danger in Side Ventures, Systematic Saving, Partnerships, Leverages, Keeping Up with the Times, Suggestions from Others. 375 pages, cloth, \$3.

ACTUAL COST IN PRINTING.—By Isaac H. Blanchard. Contains full description of the purpose and use of all the blanks and records, together with complete cost-figuring tables in blank for the purchaser's own use; in the rear of the book are the necessary ruled pages for taking off the annual or semi-annual inventory of the plant, so that absolutely correct figures may be established and the records kept permanently in the office files; a set of tables of calculations on the 5-minute-unit basis; a set of tables of calculations on the 6-minute-unit basis; a complete set of the loose blanks described in the book; one full bound copy of the summary record book for all the departments, sufficient for one year's use in the

office, \$5. Style 2.—Annual Tables for Printers and Binders. Every practical printer insists on revising his cost figures each year, and for that purpose the cost-figuring tables, together with the blank sheet for use in annual inventory, have been bound together in convenient book form. \$2.

COST OF PRINTING.—By F. W. Baltes. Contents: Forms—Job Tag, Job Book, Bindery Tag, Compositor's Daily Time Tag, Total Time on Job in Pressroom, Total Daily Time in Pressroom, Daily Register of Counters, Foreman's Daily Press Record, Form Tag, Time Book, Day Book, Journal and Cash Book, Job Ledger; Tables—Weekly Summary of Labor, Monthly Register of Counting Machines, Monthly Summary of Press Records, Statement of Wages and Expenses, Cost of Time in Composing-room, Cost of Piecework, Cost of Work on Cylinder Presses, Cost of Work on Job Presses; Measuring Dupes, Paid Jobs, Legal Blanks, Monthly Statement of Loss or Gain, Inventory Books, Notes. Samples and Prices. 74 pages, cloth, \$1.50.

CAYCES & TURNER, Martin, Tennessee, write: "We inclose copy of a pamphlet we are printing, and would be pleased to have you estimate the cost of getting out two thousand copies, 196 pages. We pay printers \$10 per week. Stock will cost us \$63.76. Sixteen pages and turn at a form. A gentleman who claims to know states that we could print the job for \$185 and make money out of it."

Answer.—

Stock	\$ 63.76
Cover, one ream, 22 by 28—50, plain S. & S. C., at 5 cents per pound.....	2.50
Two per cent loss on stock.....	1.25
Six pounds ink, at 25 cents.....	1.50
One pound wire.....	.10
One pound glue.....	.25
Composition—type-page, 23 by 39 ems pica, 242,000 ems eight-point, 345 hours at 18½ cents.....	63.83
Cover-page, ½ hour .....	.10
Make-up, 196 pages, 30 hours.....	5.55
Lock-up, twelve 16-page forms, 15 hours.....	2.78
One 4-page form, ¼ hour.....	.05
One 1-page form, ¼ hour.....	.05
Make-ready—twelve forms, 28 by 42, 15 hours.....	2.78
One form, 14 by 20, 1 hour.....	.19
Cover, 10 by 14¼, ½ hour.....	.10
Feeding time, 28,000 impressions, 30 hours.....	5.55
Hand folding twelve 16-page forms:	
Eighty hours at 10 cents.....	8.00
One 4-page form, 2 hours.....	.20
Cover, 2 hours .....	.20
Gathering, thirteen signatures, 20 hours.....	2.00
Stitching, 10 hours.....	1.00
Trimming, 2 hours, at 18½ cents.....	.37
Wrapping and delivering, ½ hour.....	.10
One hundred per cent general expenses.....	92.85
Twenty-five per cent profit.....	63.75
Total	\$318.81

If your friend will show you in detail how he can produce this job for \$185 and make money at it, he has methods some of us would be glad to become familiar with. I do not know the price you expect to get for the work, but would not advise your quoting much less than the above price, unless your costs are less than those estimated. Look out for your general expenses.

ESTIMATE BLANK.

Zion Printing & Publishing House, Zion City, Illinois: "I have been reading your articles on the 'Business Office' with great profit and pleasure. I am enclosing an estimating blank which we have found to be very easily and quickly worked—by having 'stock,' etc., at the bottom is much more convenient than when at the top. We add our fixed charges to 'productive labor' and profit of twenty or twenty-five per cent to total cost."

Answer.—Your blank is very concise and convenient and should give excellent results. A criticism that I might make would be that your printed list of kinds of work is too limited, and where all items possible on any job are down in black and white all that is necessary in making an estimate is to follow the list from top to bottom and fill in where required. However, your general idea is good and the result is a method of figuring, quick and efficient. I am glad to see printers falling into line in this regard.

THINKS THE ESTIMATE TOO LOW.

George Wray, Minneapolis, Minnesota, writes: "My attention has been called by a friend in Milwaukee to your estimate for G. H. Grant, Stillwater, Minnesota, and my friend wants to know if conditions are such on this side of the St. Croix river that the printer can so easily underbid the printer on the Wisconsin side of the water. I reply that it makes no difference which side of the St. Croix one has a printery, so long as the owner of the printery knows how to estimate. It is pointed out to me that THE INLAND is professedly an educational magazine, and that it is a serious drawback to its usefulness if its instruction is not sound. The writer has not seen the job in question, but is quite sure Mr. Grant will never make much headway in

to show the customer just such stock as would have cut 3½ by 6 without so much waste, and thus cut the cost of stock to \$16, without giving less value in the stock. It is never good policy to load any job with a lot of waste stock."

CHARGE IT TO THE JOB.

George E. Wray, Minneapolis, Minnesota, in answer to the question, "If, for the sake of convenience, an \$18 man is put on work of a \$6 girl, is, or is not, the cost production increased, and how should it be accounted on the completed job?" writes: "If the exigencies of the occasion demand that an \$18 man be put to work on \$6 work, the job causing these exigencies should pay the increased cost of production. This question opens up another thought. The



ONE THOUSAND FEET IN THE AIR.

Top of Craggy Mountains, near Asheville, North Carolina.

Stillwater, or anywhere else, unless he gets better prices for his labor than THE INLAND PRINTER instructs him to.

Five thousand booklets, eight pages, 3½ by 6 when trimmed:

Stock, 21 by 33, \$12 ream, 850 sheets, including covers	\$20.40
Express from St. Paul.....	.60
Profit on paper stock, 25 per cent.....	5.25
Composition, 7,300 ems, at 60 cents.....	4.40
Make-up, 8 pages, at 15 cents.....	1.20
Lock-up, two forms, 1½ hours.....	1.20
Make-ready, 2 hours; running 6 hours; total, 8 hours at \$1.25.....	10.00
Make-ready, on jobber for one page color, ½ hour, running 5½ hours; total 6 hours at 80 cents...	4.80
Ink .....	.50
Folding, 5,000 double folds, at 25 cents and 20 cents equals 45 cents.....	2.25
Stitching	6.25
Delivery .....	.25
Total	\$57.10

"As against your price of \$46.74. This is only a low price for the job. If Mr. Grant had to run it in four-page forms, the job would cost more, but would not be worth more. It seems to me that it would have been good policy

established scale of wages in a given city is \$18 per week. An \$18 man is given charge of a small catalogue, and he is given to help him a \$9 man to set the straight matter. The \$9 man can accomplish just as much on the straight matter as the \$18 man could if he had set the entire job himself. Is it not perfectly fair to charge the customer the same rate as would have been charged if the \$18 man had set the entire job?"

Not in defense of our position, nor what has been written in this department, but for the benefit of those who have asked for and received estimates on work they have done or would like to do, and those who have taken the position of critics of some of these estimates, I want to take this time to write a few lines in answer to these criticisms.

In the first place, criticism and argument — good, sound, unbiased argument, is what we want; without it the labor expended and the possible benefit to the trade hoped for in this department will be unavailing in the first case and a failure to materialize in that of the latter. At the same time, we have tried to make it plain that estimated prices given are *not intended to be the ideal*. The matter of the proper or idealistic selling price is one for the future to

settle, present plans and desires being to explain the best *methods* of arriving at certain results and not to give the *results* only. The duty of this department is not, therefore, to give estimates in their ideal form or how we hope they could be.

If a printer wants an estimate, he does not usually ask for what he *ought* to charge to conform to the idealistic. He wants to know, either to help him to secure a certain job, to satisfy himself that the price he made is reasonable, or to satisfy a curious or rebellious customer that his charge is fair. It is not in our province to dictate what one printer should charge to succeed in establishing him-

city is operated systematically and economically as plants generally are in larger cities, other conditions being usual.

How easy it is to say, "That job is worth not a cent less than \$100" to a printer who can prove to his own satisfaction, at least, that he can produce it for \$75 and make a profit. Who can say he can not? No one who has not personally and carefully investigated his particular condition. Of course (to make our position yet more plain), we are hoping that in time this same printer *will* be in position to ask and *receive* the \$100. That is the ultimate goal we are seeking, and we are expecting to work up to it, or we would not continue to occupy valuable space in THE



HAYING TIME.

self in the idealistic class. He would be too lonesome at present.

Readers of this department must get close to the fact (harrowing at that, no doubt) that the editor is obliged to make estimates on the conditions existing in the city, or, more difficult still, in the very office from which the request comes, so far as possible. It would be the simplest thing in the world for me to take specifications as they come and make the estimates on the basis of conditions as they are in my own city. The easiest thing in the world, I repeat. But would it be of practical value to the correspondent? Could he apply the *result* without difficulty and possible loss? And further, while many will, and have done so from time immemorial, insist that it costs as much to produce a certain piece of work in a town of twelve hundred people as it does in a city of one hundred and twenty thousand, it is an easily proved fact that it does not. That is, it *should not*, might be well to add; provided the shop in the smaller

INLAND PRINTER, but it is a matter of development entirely. Our saying "so and so" will not suffice; we are forced (in order to convince) to go through much preliminary work that will instruct the man who has not either the time or inclination to study out the principle alone.

In making estimates used as criticism of others previously made in this department, it seems to be the usual thing to use what is called the "set-scale method," and while there are printers who have for years used it, they do so from custom principally, not *knowing* positively whether a profit is being made or not. It has been handed down from generation to generation and from journeymen of old to printers of to-day, and apparently accepted as proper and certainly most convenient, and while many printers have no doubt made money by it, such a method will in no way whatsoever prove or even assist to prove that prices thus arrived at are correct and satisfying to the present-day investigators, that it will answer for the future. Esti-

mates thus made can not demonstrate conclusively to the man arguing with the majority of others that they will yield a profit. If this is the case, what will avail or result from a criticism with such a "cipher" or unknown quantity?

In making criticisms effective or of value when using the set-scale method, do not merely put down a lot of figures and expect, by totaling them up, you can show a correct selling price that printers will accept as sufficient. Say *why* and *how* you arrive at those figures. Analyze them. Give your reasons for using them. Not only this, but make your explanations so explicit that we will all know beyond a possible doubt that you know what you are talking about. I repeat, *show us why*.

The mere statement that "twenty-five per cent" must be added to cost of stock for "handling and profit" is no forceful guide. On what do you base the percentage for handling; on weight or cost of stock in dollars and cents? If on the latter, does the cost of stock control the expense of handling? If on the weight, how can you figure "profit" on "weight"? If you figure "cost of handling" on the price of the stock, is more labor required to handle 10-cent stock than 5-cent? You must apply both "handling and profit" on the same principle, should you not? If not, what do you do and why? These are but small matters, but very essential, nevertheless.

Now when you say in your criticisms that composition is worth 60 cents per hour, cylinder presswork \$1.25 per hour, certain bindery work \$8.50, for instance, in order to make them effective or convincing, should you not explain *why* and *how* you arrive at it? While it may not be absolutely necessary to make estimates in any other way than this for your own satisfaction, provided you know you are right, it is necessary, when you are trying to explain to others, that you go more into detail.

As noticed elsewhere, Mr. G. E. Wray sends in a criticism of an estimate given for Mr. Grant, of Stillwater, Minnesota, in the April issue. He also sends an estimate of his own, showing what he thinks Mr. Grant should have asked. He, of course, based his calculations on Minneapolis conditions, and also made some voluntary additions to the specifications as sent to me. In order to satisfy him and to sustain my position, I submit below an estimate on same job with the same methods used as in the former estimate, which I offer for what it is worth. This is also based on Minneapolis conditions as I understand them without being prompted.

Fifty-four hour week:	
Compositors	\$18.00
Make-up	18.00
Pressmen	24.00
Feeders	10.00
Bindery labor	9.00
<hr/>	
Stock	18.00
Ink .....	.25
Wire .....	.20
Composition, 10 hours, at 33½ cents	3.34
Make-up, 1½ hours, at 33½ cents .....	.50
Lock-up, 1½ hours .....	.50
Make-ready, 3 hours	1.89
Feeding, 15 hours	2.78
Folding, 8 hours	1.34
Inserting, 5 hours .....	.83
Stitching, 10 hours	1.67
Trimming, 4 hours .....	.67
Wrapping .....	.25
One hundred per cent	13.77
Twenty-five per cent profit	11.50
<hr/>	
	\$57.49

All I ask is, that in making criticisms of estimates, readers will please adapt themselves to conditions as they

are in the locality from which the requests come. We can not take up space publishing estimates made on conditions as they probably *should* be. We know how they *should* be ourselves, and can make the same criticisms. Criticisms of *methods* rather than estimates will make more interesting and instructive reading, and I suggest that as many as can, make up a schedule of your *plan* of making prices, how cost and selling price are arrived at and general methods of conducting the selling end of the business. We want to arrive, in the shortest possible time, at a definite and positive uniform plan of estimating, and criticisms of estimates made, unless they bear directly upon this element, while possibly influencing and affecting the particular case in question, will avail nothing and be of slight interest to the trade at large.

WAS THE PRICE TOO HIGH?

W. H. S., Nebraska: "Kindly give me an estimate on booklet. We charged the customer \$20.00 for this job and he insists that \$20.00 is too high. Two thousand copies; stock enameled book, 32 by 44—100, 6½ cents per pound; twelve pages and cover trimmed to 5 by 6, saddle back, wire stitched; Orinthoid cover, 20 by 25—60, 11 cents per pound; printed in two colors; no cuts; composition and presswork, 25 cents per hour; binding, 15 cents per hour; presswork on half-medium Gordon."

Stock, 400 sheets—80 pounds, at 6½ cents	\$ 5.20
Cover, 340 sheets—40 pounds	4.40
Four per cent loss on paper stock .....	.38
Ink, 1 pound .....	.60
Type form 22 by 29 ems pica.	
17,000 ems composition, eight-point, 25 hours at 25 cents	6.25
Make-up, thirteen pages, 3 hours .....	.75
Lock-up, 1 eight-page form, 1 hour .....	.25
Lock-up, 1 four-page form, ½ hour .....	.13
Lock-up, 2 one-page forms, ½ hour .....	.12
Make-ready, 13 by 21, 2 forms .....	.50
Make-ready, 11½ by 13, 1 hour .....	.25
Running time, 8,000 impressions, 10 hours	2.50
Hand folding, 6,000, 7 hours	1.05
Folding covers, 2,000, 1 hour .....	.15
Inserting, 1½ hours .....	.23
Stitching, 2 hours .....	.30
Trimming, 2 hours .....	.30
Wrapping and tying .....	.15
One hundred per cent general expenses added to all productive labor	13.18
Twenty-five per cent profit	9.26
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	\$46.20

In addition to the above, the correspondent sends his own estimate of the job which follows. Look over both for comparison and see which is right or nearer so. I guess the customer was not imposed upon in being asked \$20.00.

Stock, 300 sheets, 32 by 44—100, No. 1 enameled book, at 6½ cents	\$ 3.90
260 sheets, 20 by 25—60, Orinthoid cover, at 10½ cents	3.21
Composition, 28,000 ems, at 25 cents per 1,000	7.00
Presswork, 8,000 impressions, at 25 cents per 1,000	2.00
Binding, 20 hours, at 10 cents per hour	2.00
Ink, 1-5 pound, at \$2.50 per pound .....	.50
Twenty-five per cent general expense	4.65
Total	\$23.26

CLEANING WINDOW GLASS.

To thoroughly clean window glass, pass diluted sulphuric acid, about as strong as vinegar, over it, and let it act a moment; then throw on just enough pulverized whiting to give off a hissing sound, directs the *Master Painter*. Rub both over the pane with the hand and polish with a dry rag. Rinse with clean water and a little alcohol, polish dry and clean. Treat both sides of the glass in the same way.



BY S. H. HORGAN.

In this department, queries regarding process engraving will be recorded and answered. The experiences and suggestions of engravers and printers are solicited. Address, The Inland Printer Company, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, \$1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

REDUCING GLASSES, unmounted. 35 cents.

PENROSE PROCESS YEAR-BOOK, 1905-6. \$2.85 postpaid.

THREE-COLOR PHOTOGRAPHY.—By A. von Hübl. \$3.60 postpaid.

PHOTOENGRAVING.—By W. T. Wilkinson, revised and enlarged by Edward L. Wilson, New York. Cloth, \$3.

PHOTOENGRAVING.—By Carl Schraubstadter, Jr. Cloth, illustrated with numerous diagrams, and provided with a copious index. \$3.

DRAWING FOR REPRODUCTION.—A practical handbook of drawing for modern methods of reproduction, by Charles G. Harper. Cloth, \$2.25.

LESSONS ON DECORATIVE DESIGN.—By Frank G. Jackson, S. M. in the Birmingham Municipal School of Art. Elements, principles and practice of decoration. Cloth, \$2.

THE HALF-TONE PROCESS.—By Julius Verfaesser. A practical manual of photoengraving in half-tone on zinc, copper and brass. Third edition, entirely rewritten; fully illustrated; cloth, 292 pages; \$2, postpaid.

THEORY AND PRACTICE OF DESIGN.—By Frank G. Jackson. Advanced text-book on decorative art; sequel to "Lessons on Decorative Design"; explaining fundamental principles underlying the art of designing. \$2.50.

DRAWING FOR PRINTERS.—By Ernest Knauff, editor of *The Art Student* and director of the Chautauqua Society of Fine Arts. A practical treatise on the art of designing and illustrating in connection with typography for the beginner as well as the more advanced student. Cloth, \$2.

PHOTOENGRAVING.—By H. Jenkins. Containing practical instructions for producing photoengraved plates in relief-line and half-tone, with chapter on the theory and practice of three-color work, by Frederic E. Ives and Stephen H. Horgan, the frontispieces being progressive proofs of one of the best exhibits of three-color work. The whole is richly illustrated, printed on highly enameled heavy paper, and bound in blue silk cloth, gold embossed; new edition, revised and brought down to date; 200 pages. \$2.

PHOTOCHROMATIC PRINTING.—By C. G. Zander. To learn the first principles of three-color work there is no better book than Zander's "Photochromatic Printing." The photoengraver or printer who attempts color-work without understanding the laws of color phenomena will waste much time and money. To supply this elementary knowledge is the purpose of Mr. Zander's book, and it is done in a thorough manner without scientific complexity. Fifty pages, with color-plates and diagrams. Cloth, \$1.

PRIOR'S AUTOMATIC PHOTOSCALE.—For the use of printers, publishers and photoengravers, in determining proportions in process engraving. The scale shows at a glance any desired proportion of reduction or enlargement, as well as the number of square inches in the proposed cut. It consists of a transparent scale, 8 by 12 inches (divided into quarter-inch squares by horizontal and perpendicular lines), to which is attached a pivoted diagonal rule for accurately determining proportions. A very useful article for all making or using process cuts. \$2.

THE PRINCIPLES OF DESIGN.—New ideas on an old subject. A book for designers, teachers and students. By Ernest A. Batchelder, Instructor in the Manual Arts, Throop Polytechnic Institute, Pasadena, California. This book has been designated as "the most helpful work yet published on elementary design." It clearly defines the fundamental principles of design and presents a series of problems leading from the composition of abstract lines and areas in black, white and tones of gray, to the more complex subject of nature in design, with helpful suggestions for the use of the naturalistic motif. There are over one hundred plates. Published by The Inland Printer Company, \$3.

PHOTOGRAPHY SAMPLES.—J. A. Bried, San Francisco, sends samples of a photograph process of which he is the inventor and which shows much promise. The effects are in half-tone made from exceedingly fine screens which he makes himself. The etching is done on brass. Mr. Bried hopes to have his method in use in a commercial way in another year.

ANOTHER YANKEE AFTER JOHNNY BULL.—F. Affleck, of San Francisco, wants me to take a fall out of Johnny Bull. A paragraph from his letter is this: "Enclosed

find a 'write-up' of the Carl Hentschel Photoengraving Company, of London, England. For the benefit of your Australian readers, who only hear one side of the question, I wish you would state, in no measured terms, that the United States of America is the premier country for processwork, etc." *Answer.*—The Carl Hentschel Company are reorganizing. The "write-up" which appeared in many of the London illustrated weeklies was evidently the work of a promoter who is as extravagant in his claims as a gold mine promoter or a Western town boomer. The Modine-Gamble controversy in this department is enough to referee at present.

REVERSING A TINT PLATE.—L. Fr. Bender, Cincinnati, writes: "I have a large tint plate on zinc of which I would like to have a reversed electro. Would you kindly describe in your next month's issue of THE INLAND PRINTER how to make a mold from this zinc plate from which afterward a wax impression could be made? The tint plate is a very delicate grain." *Answer.*—Why not take a wax mold from the tint plate and deposit a copper shell, back it up and plane true as usual. Then deposit a copper shell on this electrotype. That is the way Linotype matrices have been made by depositing copper direct on type. Making electro shells direct from metal is common in the trade now. But what earthly use is the reversed tint plate after you make it?

MECHANICAL INTENSIFICATION OF HALF-TONE NEGATIVES.—In a large European photoengraving establishment almost every half-tone negative is strengthened locally or intensified over its whole area in the following manner, according to the *British Journal of Photography*: Provided the negatives are not varnished, the dots may be strengthened by black lead. If only a small portion is required to be intensified then a soft pencil is used. If a large area, such as a sky, the lead may be rubbed on with a pledget of cotton or a stump. The lead will be found to adhere to the top and the sides of the dots only, and if done correctly will not touch the spaces between the dots. One would think it unnecessary to resort to this practice at all, nevertheless it is the rule at one large Continental establishment, and every negative is so retouched.

FOUR-COLOR WORK.—The C. E. P. Co., Coldwater, Mich., writes: "Please answer, through your Photoengraving column, what color screen is used to make the negative for printing the black plate in so-called four-color work now being used. We judge that color separation would be necessary to produce the proper effects. Any further suggestions would be appreciated." *Answer.*—So-called four-color work does not mean that the fourth plate should be printed in black ink. The fourth may be a brown or gray, or, in fact, any shade to make up for defects in the other three inks. You will notice in the *Penrose Pictorial Annual* that Mr. Zander uses in his four-color process: lemon yellow, emerald green, magenta red and ultramarine blue. The color filters he uses are consequently the complementary colors of these four inks. If you must have a black printing-plate I should advise an exposure without a color filter, but on a panchromatic plate with full exposure.

THE INCREASE IN THE PRICE OF COPPER.—Numerous causes are responsible for the gradual increase in the price of copper. The growing use of this metal in half-tone engraving and electrotyping, in the sheathing of vessels, roofing of buildings, telephone wiring and other electrical purposes keep the supply exhausted. The Chinese government recently turned sixty thousand tons of copper into her mint for a new coinage, so there is little hope of the price lessening. To the half-tone worker this is a serious

matter, for the reason that while prices of polished copper tend upward, the prices for copper after it is engraved in half-tone tends downward. They should consider the practicability of substituting zinc for copper in the greater part of their half-tone output. Zinc has been improving in quality and declining in price. Some few years ago the writer paid fifteen cents a pound for pure zinc unpolished. He now buys zinc polished, sufficiently pure for half-tone engraving, for less than ten cents a pound. If half-tone workers will but experiment a little they will find they can substitute zinc almost entirely for the more expensive metal.

COLLODION EMULSION.—From Penrose & Co., London, comes "Collodion Emulsion," by Henry Oscar Klein. This is one of the most timely and practical books for those who buy ready-made collodion emulsion either in solution or in the dry pellicle. There is no original formula for emulsion given, though Baron von Hubl's formula is printed and recommended for color-sensitized plates, and Sir W. Abney's "Photography With Emulsions," and Baron von Hubl's "Collodion Emulsion" are recommended to those wishing to learn the details of collodion emulsion making. The author says: For direct three-color half-tone work, collodion emulsion will find no equal. In the hands of the intelligent worker it will prove a reliable and pliable process, for it will permit of no end of variations to suit certain requirements, but to the careless "slap-dash" worker it will be the probable cause of his being visited by the most aggravating and apparently mysterious troubles he may ever dream of. This chiefly accounts for the bad reputation that collodion emulsion at one time enjoyed in certain quarters, and for the heartbreaking work of its reintroduction. The book can be had from Tennant & Ward, 287 Fourth avenue, New York. Price, \$2.50.

MR. WILLIAM GAMBLE IN PARIS.—Mr. Gamble tells in *Process Work* of what he saw of interest to processworkers while in Paris for a week. Here are a few jottings from his notes: "Victor, an electrotyper in Paris, does considerable business in photoengraving. M. Rousset, another electrotyper and photoengraver, has some very ingenious wood-planing machines, the invention of his father, which operate somewhat like a Daniel's planer turned on its side, so that the bed is vertical. *L'Illustration* has a photoengraving department that is fairly well equipped. Royle's machinery is in evidence in the mounting department. A peculiar feature of the work in *Le Petit Parisienne* is that the printing is done without a pressure frame, the film being stuck down on the sensitized metal. In the etching-room the etching troughs are of stoneware rocked by power. At the photoengraving firm of Cueille et Boucher I was much interested in some splendid specimens of metzograph screen work. They are quite enthusiastic about the capabilities of this screen. It is noteworthy that these specimens were printed on zinc by the bitumen process. There is a great amount of bitumen work done in Paris, and they prefer it to the enamel, in spite of the fact that the exposure takes about four hours. The Société d'Arts Graphiques have large works purely devoted to the production and printing of color blocks. I saw a big pile of large fashion sheets which I heard were destined for America. They have been experimenting with considerable success on the printing of three-color work on a new rotary principle, about which much may be heard later. In their photoengraving department they use the combination of darkroom and camera, but I gather they were not very much pleased with it. M. Chapelle is the instructor of photoengraving at the public technical school of Paris. Photogravure, collotype, half-tone, line and

three-color are taught. The photogravure is done by the old direct way of sensitizing the metal with bichromated gelatin and depositing the dust grain on it, instead of by the carbon transfer process. They have also done very good photogravure work with the screen in it."

ENAMEL FOR BRASS.—Ernest S. Foden has this recommendation to make in *Process Work* to one who has trouble in getting enamel to adhere to brass. He says: "The cause of the enamel coming off may be due to one of the following causes: Insufficiently hardened or insoluble enamel, and too much heat in the drying of the plate after the bath. The fact that the same enamel holds well on copper



BURNING OF HEADQUARTERS TYPOGRAPHICAL UNION NO. 6.
New York, April 27, 1906.

is no criterion as to its practical value for brass. The enamel that comes off copper is poor stuff, for the nature of that metal is favorable to legitimate treatment and heat, but with brass and zinc it is different. It is the zinc in brass which tends to create trouble, if it is not taken into account in the making up of the fish-glue solution and great care is not taken in submitting the metal to heat when drying or washing off the plate. When brass or zinc is heated above a certain point the molecules crystallize, constantly changing the formation of the metal, hence it will be obvious little heat and a more impervious enamel are imperative. To render the enamel more insoluble the addition of chromic acid—say, not less than twelve grains to twelve ounces of made-up fish-glue solution—is essential, and also the addition of the white of one egg is advisable. Directly the print is burnt in, dash it into a dish of cold water to harden it.

HALF-TONES FROM MEDALS AND COINS.—An inquirer who wants to know how best to reproduce, in half-tone, medals and coins, and who has made plaster casts of these objects and photographed the casts without getting satis-

factory results, writes to *Process Work*, whose readers supply a number of answers, from which the following points are gleaned: "Some recommend photographing the medals or coins first, then touching up the photographs by strengthening the shadows and brightening the high lights. The half-tones to be made from the retouched photographs. To make half-tones from these bas-reliefs direct, all recommend that the surface of the metal to be copied be first dulled to one tone. The air brush is used by some to apply the gray or white color. One suggests that a spray of white be applied to the medal at an angle from, say, the upper left-hand side, while a spray of black is blown on the medal from the lower right-hand side. One coats the medal with oxid of magnesium by holding it over a piece of burning magnesium ribbon. From all the opinions on the subject it would seem that a practical method would be to attach with fish-glue the medal to a piece of stout cardboard. Dab the medal over with soft putty to cover the bright surfaces and bring all to one tone. Fasten the cardboard to the copying board and illuminate the coin or medal with a single electric light, being careful that there are no reflections from the side opposite to the electric light, to prevent which it would be well to hang a piece of black velvet or some other absorbent of light at right angles to the face of the medal on that side. Then make the half-tone direct."

CROSS-LINE SCREEN OR GRAIN SCREEN FOR THREE-COLOR WORK.—Carl G. Hoffmann, New York, asks: "Is not the metzograph screen which gives grain plates just the thing for three-color work? It does away with the disagreeable mechanical pattern of the line or cross-line screen. Have you seen any results in colorwork with the metzograph screen and who is using it?" *Answer.*—Without having any personal experience with the metzograph screen, or having seen any three-color work produced with it, it is the judgment of the writer that it will not give as good results as are at present had with the cross-line screen. There is no doubt that three-color plates can be made with it, but it will require much more practice to acquire the delicate gradation and proper balance of color values with the new screen than with the old one. The danger with

the cross-line screen in three-color work is that it is liable to give, with the exception of the yellow plate, too great contrasts. With the metzograph screen the danger is the other way in a tendency to flatness. Too great contrast can be more easily remedied in the printing than flatness. It is not possible to name at this writing any one using the metzograph screen in three-color work. When it is so used it will be mentioned in this department.

ABSOLUTE FOCUS ON MAPS WITH LARGE LENSES.—"Operator," Washington, D. C., asks: "Is there any positive rule about focusing large maps with rapid rectilinear lenses? Some operators focus for the center, others half-way from the center to the corners, and now I find one who focuses on the corners. This is of course done with the largest stop, which brings only part of the map to a focus, smaller stops being used when the negative is made." *Answer.*—With rapid rectilinear lenses it is customary to focus with open stop on a circle on the copy one-third the distance between the center and corners and then diaphragm until the copy is sharp on the ground glass. In *Le Procédé*, M. Clerc has the following suggestion on this question: He inscribes a circle on a piece of bristol board the diameter of the largest aperture of the lens. Divide this diameter vertically into four equal parts by three horizontal lines. Cut out the upper and lower segments, leaving a strip of bristol board equal in width to one-half the diameter of the lens. Then take the largest stop, place it over the cut bristol board and trace the outer sides of the stop so that when the bristol board stop is cut out the openings will be equidistant from its edges, as shown in the diagram herewith. Blacken this new stop and insert in the lens. On trying to focus with it the horizontal lines in the copy will appear double, but a point will be found where the double lines come together and register perfectly on each other. This is the point of absolute focus of the lens. The cardboard stop is to be taken out and the proper small stop inserted before making the negative.



STOP FOR FOCUSING LINE COPY.



OPERATOR—"What do you think of the new foreman, Jimmie?"
DEVIL—"Say; dat feller could print all he knows in display type on a postage stamp widout canceling de stamp!"—*Monotypist*.

ENGRAVED LETTER-HEADS.—L. C. Rhodes, Rensselaer, Indiana, writes: "Can you supply me with a book that will give me detailed instruction as to how designs are made for letter-heads? That is, what material is needed? How large are the drawings made? And above all I would like to know how the clouded shading is made in the sample enclosed?" *Answer.*—No book will give the information sought. The letter-head sent was engraved on stone originally. Lithographic transfers were made from the original engraving and transferred to a smooth lithographic stone from which the letter-heads were printed on a steam press, four, six, eight or more at one impression. For printing on bond or other rough surfaced paper lithographic engraving and printing is preferred to relief engraving and typographic printing. The finest letter-heads are printed on bond paper from steel engraved plates. The next best method for the purpose is lithography. Another acceptable process is cereography, or wax engraving, from which an electrotpe is made. The last process in point of result is photoengraving from a line drawing. The usual way to learn letter-head designing is to take a course of two or three years in an art school and then get a small position in the art department of a lithographic house. Too long a time you may say to apply to learning. Well, Germans,

with their excellent technical schools, take more years than that and they are the ones that fill the positions acceptably. Get-rich-quick schemes do not appeal to them as they do to the American-born.

AIR-BUBBLES IN LENSES.—J. D. S., Boston, writes: "I wanted to buy a large lens of from fifteen to twenty inches focus, but the lenses I examined had air bubbles in them large enough to be conspicuous. The salesman told me that bubbles did not interfere in the slightest with the working quality of the lens. I reasoned this way, that a lens filled with air bubbles across its entire surface would be worthless and that the percentage of injury to a lens by bubbles in the glass could be figured by comparing the size in aggregate of the bubbles with the area of perfect glass. Was I right?" *Answer.*—This defect of small bubbles is characteristic of the modern high-class anastigmat lens. In the manufacture of the best crown and flint glass, it is impossible to keep the "metal"—as molten glass is called—heated to the required low temperature long enough to allow the bubbles all to rise to the surface, hence the presence of a few bubbles is unavoidable. Glass containing this defect to the extent of two or more per cent is rejected as unsuitable for lenses. Rays of light going through a lens strike the air bubbles and are either reflected back, or at varying angles, so that bubbles may be considered as opaque spots, and it might be better if they were, for they would then stop promiscuous reflections.

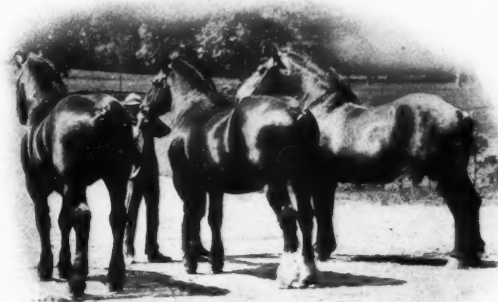
HOW TO GET COMPETENT PROCESS ENGRAVERS.—"In THE INLAND PRINTER (American) for March, lately to hand, there is contained an advertisement for a works manager wanted by first-class firm of photoengravers in England; only experienced men well up in all branches need apply; salary £400 per annum. One would have thought it unnecessary to go to America to get a suitable manager; in fact, in the light of Mr. Gamble's account of his observations in America, it is doubtful if men there are so 'all-around' as they are in England. We happen to know of two similar advertisements appearing in the same paper from English establishments, and both vacancies were filled, not by Americans, but by Englishmen who had only been in America for a short time." The above is from the *British Journal of Photography*, the oldest and best photographic journal in the world. Mr. Gamble's goodnatured comment on our carelessness about workshop appearances has evidently given Mr. George E. Brown, editor of the *British Journal of Photography*, the impression that our workmen are unskilled and that it is "carrying coals to Newcastle" for an English firm to advertise in THE INLAND PRINTER for competent men. In 1880 the writer interviewed Thomas A. Edison in his Menlo Park laboratory in a ramshackle old building. A pile of straw and old clothes in a corner was pointed out as the place where Edison slept, but it was in this untidy workshop, the sight of which would have made Mr. Gamble seasick, that the great inventor had discovered the phonograph, the incandescent electric lamp and a most important feature of the telephone. In the haste to turn out every possible square inch of engraving during business hours, repairs and improvements of apparatus as well as cleanliness of quarters are too frequently neglected, still the great quantity and superior quality of our output are recognized by processworkers everywhere. Within a week comes a request for a process manager to go to Rio Janeiro. Expert advice is asked on a new fifteen-camera engraving plant, and Mr. Robert H. H. Baird, of the *Evening Telegraph*, of Belfast, Ireland, calls for information as to how it is we print half-tones so well on fast newspaper presses. So it would seem that foreigners know not only that THE INLAND PRINTER

is the proper place to advertise for competent workmen, but it is to this country they should come for information on practical processwork.

VERFASSE'S "THE HALF-TONE PROCESS."—A CORRECTION.—Clarence E. Klaffenbach, Muscatine, Iowa, writes: "In regard to the following I would feel very grateful for an explanation thereof. It is taken from Verfasser's 'The Half-tone Process' which we bought of you. 'Affix the plate to the whirler and coat twice with the following solution, which must have been previously carefully filtered through a piece of cotton wool placed loosely in the neck of a funnel.

White of one egg or dried albumen	....10 grains or 10 parts
Water	.....1 ounce or 440 parts
Potassium bichromate	.....10 grains or 10 parts

Dissolve the bichromate in one ounce of water, and add to the egg solution, thus making up altogether about ten ounces.' Now I do not understand where the ten ounces come in. Will you please explain?" *Answer.*—Verfasser



A TAILPIECE.

has made an unaccountable blunder in his formula. If you will make up the solution this way you will have no trouble: Take the white of one egg and beat it up well. Then dissolve fifteen grains of ammonium bichromate in one ounce of water. Add seven ounces of water to the white of egg, stir the bichromate solution in slowly and then add liquor ammonia drop by drop to the orange-colored solution until it turns a pale yellow; filter, and you will have as good a sensitizer for metal as there is. An apology from Verfasser is in order.

AMERICA AND ENGLAND IN PROCESSWORK.—Mr. E. E. Modine, of Chicago, in the MARCH INLAND PRINTER, page 898, takes Mr. William Gamble, of London, to task for claiming too much for Europeans in the discoveries and development of processwork. Mr. Gamble's reply is given in full, as the discussion is worth space for its educational value: "I have read with interest and some amusement the remarks of Mr. E. E. Modine, in the last number of THE INLAND PRINTER. His letter seems to exemplify the truth of the old saying that 'none are so blind as those who won't see.' It is an unfortunate failing of the American young man that he lets his national pride get the better of his common sense and good judgment. He is apt to forget that the United States is only a relatively small part of the whole world. He also overlooks the fact, or has never been fully taught it, that when his country was still an unpeopled wilderness there were vast nations which had developed the highest mechanical, scientific and artistic skill and whose peoples to this day carry on manu-

factures and handicrafts which America with all its wealth and enterprise and ingenuity has not been able to acquire. If I thought that Mr. Modine's letter represented the feelings of American photoengravers in general, all I can say is that I should be sorry for them, as they will be bound to 'get left' by the progress of photoengraving which is now going on in Europe. Mr. Modine says he has visited every large city in the United States to study engraving ideas, but why has he not extended the field of this survey to Europe? If he is a skilful man in his business he would find no difficulty in getting employment and he would then soon see how much, or shall I say how little, he knows. I can not think of any other way of convincing him that there are bigger and better equipped shops in Europe than in America, and that the men are in no way inferior. I don't know where Mr. Modine has got the information that I only visited a couple of shops. As a matter of fact, I visited over twenty, out of which twelve were in Chicago, and all are representative firms of the highest repute. I hope your readers will not be led to believe that all these plants were of a rickety description — far from it — but I do hold that American plants in general are inferior to European ones. It is my misfortune probably that I did not visit the Crescent and the Columbian Photoengraving Companies, but as I had never heard of them and none of my friends who gave me introductions suggested my visiting these plants, I must be excused for overlooking them. Apparently I should have found there the cream of all the best ideas from 'every large city in the United States,' and it might have modified much of what I have had to say about American photoengraving. I would remark, however, that when a firm, no matter where it exists, turns out 'results little less than marvelous' the world generally hears of it. The fame of many American photoengraving houses has reached Europe. We read of them in the trade journals, see their advertisements and their specimens, and American visitors to our country sound their praises. Why, then, have the Columbian and the Crescent hidden their light under a bushel? Mr. Modine has not shown any conspicuous modesty in his letters. Why should he do so in regard to his business? I rather like the way in which he makes the old eagle shriek and flap its wings, but please forgive me if I think it a tame bird all the same. Mr. Modine asks me what state the three-color process was in in 1894. Well, I will say that some very good work had been done in Europe before that time, and nothing was done commercially (all honor to Mr. Ives's experimental results) with three-color work in the States until Kurtz brought the Vogel process from Europe in 1892. Mr. Modine has not disposed of my statement that there is not a single process known in America that was not originated in Europe. I think I know process history very well, and could give chapter and verse if space allowed. I would just say, however, that all photo-mechanical processes sprang from the work of two Britishers, Mungo Ponton, who discovered the sensitive properties of bichromate salts, and Fox Talbot, who applied this invention to photoengraving, and was the first to use a screen. Fox Talbot's work was not crude experiment. I have proofs of his plates which show a delicacy in tone gradation, and detail, which the photogravure process of to-day does not excel. I do not claim any exclusiveness for England in regard to the invention of photo-mechanical processes. All European nations have had a share in them, and we acknowledge the part played by America in bringing the half-tone process to a commercial success by the introduction of the engraved screen, the revival of the enamel process on copper and the development of improved letterpress printing."

NEW COOK COUNTY COURTHOUSE.



CHICAGO is setting an example for other great American cities in the construction of a public building planned on business lines and adapted to business purposes. In the New Cook County Courthouse the canons of art have been deftly combined with business principles and a type of architecture produced in which ornamental features have been harmonized with public-convenience and sanitary conditions.

This radical departure from old ideals has been accomplished without sacrificing any architectural feature essen-



E. J. BRUNDAGE, PRESIDENT, BOARD OF COUNTY COMMISSIONERS.

tial to the beauty or unity of style or composition. On the contrary the new structure will retain all the strength, dignity and repose of the ornate type of public building and make more prominent its simpler and more lasting charm.

Many features of the old style of public building — especially of the typical courthouse — will be missing. The towering dome whose chief purpose was to furnish a site for the town clock and a place for those lofty interior decorations, invisible except at imminent risk to the cervical vertebrae, will be absent. The massive porticoes, those efficient collectors of dust, dirt and rubbish and bars to light and air, have been omitted. One feature of the old school of municipal architecture remains — the lofty and imposing pillar — but so arranged and adapted to existing conditions as to offer a minimum of obstruction to light and sunshine.

In the interior the lofty corridor and high ceiling, the rotunda with its galleries and niches, the massive decoration threatening momentarily to fall on its unsuspecting victim — all have been abolished and with them the attendant conditions that made impossible effective lighting, heating and ventilation. All the space is put to some use; none of it having been assigned to waste heat and inaccessible dust and cobwebs.

In the official management of the constructive work the same business principles and attention to public interests have prevailed. Before President Edward J. Brundage and his associates on the Board of County Commissioners entered upon the task of constructing a new courthouse they took the public into their confidence. Their first act was to select a committee consisting of Chicago's leading business and professional men to inspect the old courthouse.

More than a score of county employees in a single department in one season had died from diseases contracted through the unsanitary conditions of the old building. Explosion and fire had damaged the upper floors of one end of the structure to the extent of \$150,000, after killing two men. Blocks of stone falling from the crumbling walls had for years endangered the lives of persons entering the courthouse or passing by it. But, lest the cry of jobbery should be raised, men who paid the taxes and frequented the courts were asked to say whether a new courthouse was necessary.

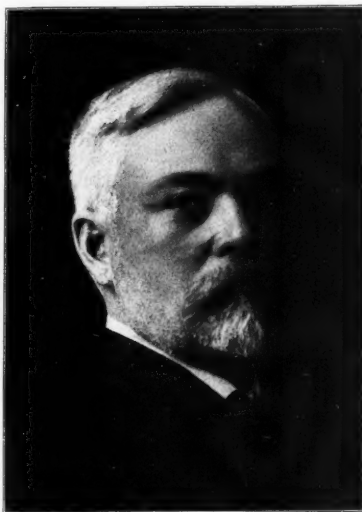
erection of a new courthouse, with some additional members skilled in architecture, constituted the commission.

The plans of Holabird & Roche were chosen and they became the architects of the new building.

The first move toward a new building was made January 23, 1905, when the citizens' committee was appointed to inspect the old building. Nine months later, on October 31, contracts between Holabird & Roche, architects, and John M. Ewen, consulting engineer, for the construction of the new building, were signed. Two and one-half months before, a contract had been entered into with James A. McMahon & Co. to wreck the old building within ninety days and the work was now well under way.

The contract for the caisson foundations was let December 11 to the George A. Fuller Company for \$220,000, the work to be completed by May 15, 1906. The foundations, complete in every detail, were turned over to the William Grace Company on that date, the Grace Company having been awarded the construction work for \$3,284,000.

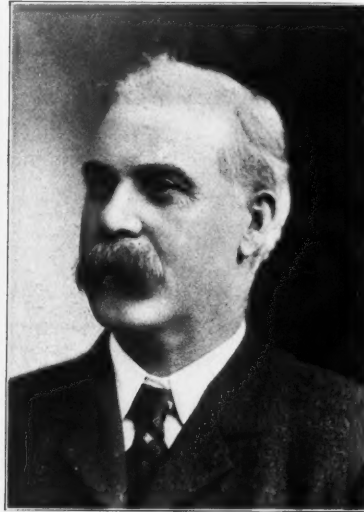
These dates have been given to show that business



WILLIAM HOLABIRD.



MARTIN ROCHE.



WILLIAM GRACE.

Principals of Holabird & Roche, Architects, and William Grace Construction Company, Contractors, Cook County Courthouse.

Among the members of this committee were John G. Shedd, of Marshall Field & Co., one of the largest taxpayers in the country; Graeme Stewart, a leading wholesale grocer; Walter H. Wilson, a large real estate owner and dealer; Harry G. Selfridge, merchant; Harris W. Huehl, architect, Judge Axel Chytraus, and three members of the County Board. These men pronounced the old building unsafe and unsanitary, recommended that it be torn down and that \$5,000,000 in bonds be issued for the erection of a new courthouse.

Backed by these recommendations President Brundage acted promptly. A proposition to issue \$5,000,000 of bonds was submitted to the people at the April election and approved by the voters. New quarters for the courts and county offices were obtained and within five months from the day it was decided to erect a new building contractors began to wreck the old one.

In the meantime a commission had been chosen to conduct a competition among architects for plans for the new building. The competition was open to the architects of the country. The same citizens who had recommended the

principles applied to government work are as effective as in private enterprise. President Brundage has kept the work moving according to contract. In spite of the importunities of contractors no official junkets for the inspection of building material, mechanical devices or other purposes, have been indulged. President Brundage obtained expert advice and assistance before the contracts were let and then held his watch in his hand to see that the work was completed at the hour specified. Expert supervision has seen that the work has been done according to contract. If this clockwork movement is kept up for the next twelve months as it has in the last nine, the new building will be ready for occupancy on May 1, 1907, and a phenomenal achievement in municipal construction will have been accomplished.

The new courthouse will be twelve stories high, of steel and granite construction. It will have a frontage of 374 feet on Clark street and 157 feet each on Washington and Randolph streets. It will stand back three feet from the building line and the sidewalk will be widened by that much. It will rest on concrete foundations sunk to bed-

rock, the caissons ranging in depth from 106 to 123 feet. From sidewalk level to roof the building will be 205 feet high. A sub-basement will contain the machinery required for lighting, heating and ventilating the structure and operating the elevators.

It will be the first public building of the steel skeleton construction to be erected in this country. In the new structure, however, there will be something more in the exterior walls than the usual veneer of stone, brick and terra cotta used in office buildings. The walls will be of gray granite, considerably thicker and heavier than in the

of colonnades which made interiors dark and prevented the admission of sunshine. The west side of the building will be lighted by open courts, above the second floor, at each end of the building. These light courts form three wings of the west half of the structure. The interior walls will be of white enameled brick and terra cotta. The outside or west walls of the wings will be of gray brick or terra cotta.

In the center of the Clark street side of the building will be three entrances, leading into the main corridor. There will, also, be entrances at Randolph and Washington



NEW COOK COUNTY COURTHOUSE.

typical skyscraper and more attention will be given to architectural effect. The granite contract is one of the largest ever let for delivery within the time specified.

The style of architecture is of the Corinthian order modified in working out the details to adapt it to the height of the building and its environment. The lower six feet of the walls will be of polished granite. Above this for four stories the walls will be of the usual dressed-granite finish. These lower stories will serve as a base for the granite pillars which rise above it and serve as the walls for the next six stories.

These columns will be ninety-four feet high and give the structure the effect of power, dignity and repose that is absent in the modern office building and distinguish it from that type of structure. The columns will be surmounted by an entablature of architrave, frieze and cornice. Except the cornice, which will be of terra cotta, the entire wall structure will be of granite.

To preserve a maximum of natural light the windows have been placed between rather than behind the columns. This construction will remove the objection to the old type

streets. The Clark street entrances will be twenty feet high and each opening wide enough for two pairs of doors. Paneled jambs and richly carved architraves will frame the openings. The doorways will open into a spacious vestibule of marble with an arched ceiling of metal and glass. The floor will be of marble blocks laid in large designs with a border in colored marbles. The vestibule will give access to the main hall through ten pairs of doors. This hall will run from Clark street through to the rear of the building and connect with the corridor running north and south from Randolph to Washington street.

These corridors with their elliptical marble arches springing from massive marble piers will be the show feature of the interior construction. An arcade of seven of these arches will run from east to west spanning at the point of intersection the entire width of the north and south hall. Between the arches the ceiling will be vaulted and groined and covered with a rich mosaic in colored marbles. The ornamentation will be in the Italian style.

The elevators will be set in lateral arches in the main hall, two elevators to each arch. The elevator inclosures

will be of solid bronze ornamental grillework in the scrolls, flowers and foliage of Italian design. At each end of the two banks of elevators will be staircases. The two main staircase landings will be separated from the general level of the hall by marble balustrades, in the center of which will be pedestals for statues or allegorical figures.

The building will contain thirty well-lighted courtrooms. Adjoining each will be the judge's chambers, his private consultation room, jury and witness rooms, closets, basins and toilets. Besides these courtrooms specially arranged quarters will be provided for the Probate and County courts with rooms for the assistant judges and attachés.

Variety will be lent to the treatment of the courtrooms by the use of different wood and colors. Wall space will be provided for mural decorations. Except at the top of

to \$5,000,000 and a multitude of bidders have sought them, no whisper of jobbery, "graft" or favoritism has been heard. Every contract has been let in the open, every step taken in the prosecution of the work has been under the public eye, and neither political enemy nor the man with the muck rake has had a word of complaint to make.

OH, SPLASH!

The *Chicago Chronicle* says that the Nonpareil Club, an organization composed of printers, gave its sixth annual fish dinner at Roby, Indiana, May 15. The attendance was not up to that of former years, but what was lacking in numbers was fully made up in point of enthusiasm. The fish and hot biscuits were fast disappearing and the hilarity



WHERE THE GRANITE FOR THE COOK COUNTY COURTHOUSE COMES FROM.

Quarries of the Woodbury Granite Company, Hardwick, Vermont.

the building the rooms will be lighted by a series of windows which occupy the outer wall. The rooms on the twelfth floor will be lighted by saw-tooth skylights in the ceiling which will admit only the steady, northern light. All the rooms will have double windows to shut out noise and the floors will be covered with cork. Contiguous to the court floors will be a spacious law library with alcoves and recesses for the convenience of the attorneys who have occasion to use its shelves.

The commissioners' rooms, private offices of officials and quarters of the various departments will be located on the various floors with reference to the convenience of the public and the speedy and economical despatch of public business.

The new courthouse will be the first building of its kind to be ventilated by the blast system. The air will be washed before it enters the building, heated in winter and cooled in summer. The air will be removed by fans once every ten minutes. A vacuum system will clean the rooms.

Though contracts have been awarded aggregating close

about the dining table was at its height, when there was a break in the proceedings. A seedy looking individual appeared upon the scene and solemnly asked if there was a printer present. Those who were raising biscuits to their mouths paused and those who had made a stab for a fish wavered. In unison there was a negative shake of the heads of all present.

It looked like a quick "touch" and all felt that it was coming. Likewise all were prepared for strenuous resistance.

"Sorry," said the newcomer. "I was told that there were some printers here. I used to be a printer. Now I own the farm next to here and my wife suggested that I come over and invite the printers to visit us and make a night of it. Sorry," and he departed.

There was silence for a few minutes and then some one remarked: "If we were now in a flat building I would be in favor of drawing straws to see who would lock the door against the whole bunch and then turn on the gas." And no one protested.



Under this head will be briefly reviewed brochures, booklets and specimens of printing sent for criticism. Literature submitted for this purpose should be marked "For Criticism," and directed to The Inland Printer Company, Chicago.

Postage on packages containing specimens must be fully prepaid. Letters positively must not be included in packages of specimens, unless letter postage is placed on the entire package.

W. H. BURNELL, Caldwell, Idaho.—The poster is well displayed and is a very creditable specimen.

SPECIMENS from The Observer Print Shop, Corning, California, are modest and attractive, both typography and presswork being well done.

SPECIMENS from Everett H. Allen, Downer's Grove, Illinois, are examples of careful type-design and a judicious use of white space.

COMMERCIAL specimens from W. H. Seiple, St. Paul, Nebraska, are exceptionally attractive, both in type-design and treatment of color.

CAREFUL typographical arrangement, good mechanical workmanship and a judicious use of color characterize the products of the press of Beers & Frey, Trenton, New Jersey.

THE Times Printing Company, Lock Haven, Pennsylvania.—The cover submitted is attractive and well designed. The use of a heavier line for the name of the publication would be an improvement.

LOUIS P. SELDEN, Richmond, Virginia.—The use of smaller faces of type would prevent the crowded appearance which characterizes your specimens. The type-designs, however, are original and commendable.

ORIGINALITY and an appreciation of the harmony of color are strong features in the work of Melton & Earle, Dallas, Texas. The commercial specimens submitted are models of neat and tasty typography.

THE Iola Daily Register, Iola, Kansas.—The specimens submitted are very creditable, both in composition and presswork. A little more care in the joining of rules would, however, result in an improvement.

HOWARD C. HULL, Asheville, North Carolina.—With the exception of a rather free use of decorative borders, the specimens submitted are well handled. The hotel booklet cover is a very clever arrangement.

NEAT, tasty typography, good presswork and a discriminating use of color characterize the work of the Empire Printing Company, Spokane, Washington. Commercial specimens received this month are quite up to their usual standard.

G. W. EATON, Carthage, Illinois.—A more simple treatment of the title-page would have been an improvement. The three panels on the page, together with the use of three different faces of type, present a rather confusing appearance.

T. C. WILKINSON, Van Wert, Ohio.—The catalogue submitted shows originality in design, but the colors are not well handled. The cover is rather weak in color, while on the inside pages the tint is too strong for the weight of ornaments used.

ORIGINALITY in type display and a judicious use of color are responsible for the neat appearance of work done by The Buchanan Manufacturing Company, Petersburg, Virginia. Lack of careful attention to the joining of rules is noticeable, however.

A. C. BRIGGS, Louisville, Kentucky.—Your specimens show originality and careful attention to mechanical details. The piano-club cover would be slightly improved by removing a pica from below the inside panel and placing it at the top of the page.

CHARLES KIDNER, Hamilton, Ontario.—The title on the menu is too near the center of the page for the most pleasing result. The reading matter at the bottom of the page should also be raised a trifle. The substitution of a tint for the silver would be an improvement.

WELL-CHOSEN color combinations, excellent typography and careful presswork are features of commercial specimens from Hundley & McLane, Clinton, Iowa. The type-designs are original and attractive without the eccentricity so often found in attempts at originality.

MODEST typographical design, careful workmanship and excellent presswork are always noticeable features in the commercial specimens from Charles Lawson Wood, Atlanta, Georgia, the result being very attractive business stationery, devoid of freakish display.

OLIVER C. SCHOFIELD, Richmond, Virginia.—The work shows considerable originality in typographical design. Some of the specimens, however, would be greatly improved by the use of rules which would more nearly harmonize

in weight with the faces of the type. This is especially noticeable on the florist card and on the last page of the osteopathy circular, in both of which places a slightly heavier border rule would have been preferable.

A CATALOGUE of Westinghouse Fan Motors printed by Corday & Gross, Cleveland, Ohio, is an excellent production. The cover is printed in colors from half-tones and then pebbled. The text is printed in olive green and the numerous half-tone illustrations in black.

JAMES B. SIMONTON, Atlantic, Iowa.—The program cover could be greatly improved by grouping much of the matter rather than spreading it out over the entire page in lines of varying lengths. The pad heading is unique and should prove a good advertisement.

FRED DUTRA, Los Angeles, California.—Your specimens are examples of neat, modest type display and in general leave little to criticize. In the Building Association folder, however, the ornaments used are too heavy, as they completely overshadow the reading matter.

NEAT, modest typography, careful workmanship and good presswork are noticeable features in specimens received from C. T. Trott, Billings, Montana. A tendency is shown, however, to place the lower lines of reading matter on cover-pages too near the enclosing rule.

THE Paragon Press, Montgomery, Alabama.—Considerable variation in quality of type-design is shown in the specimens submitted, some of them being neat and artistic in appearance while others are rendered commonplace by the use of unnecessarily large faces of type.

LUTHER I. AASGAARD, Forest City, Iowa.—The program is an excellent piece of type-design. The use of a very delicate tint on the border would probably have made it less trying to the eye. The ornamentation on the flap of the cover should be nearer the bottom of the page.

SPECIMENS from Vaughan & Coffin, Everett, Washington, show neat, modest typography, careful workmanship and, with the exception of one or two instances in which blue and red are used as a combination, a good use of color. The professional stationery is exceptionally neat and tasty in design.

J. A. T., MOUNT VERNON, OHIO.—The specimens are very good, with the exception of the catalogue cover, the reading matter on which is entirely overshadowed by the ornamentation. While this style of cover is possible in a two-color production, its advertising value is entirely lost when printed in one color.

THE Neal Press, Marion, Indiana.—The menu specimen submitted is a very neat piece of typography. The business card is rather confusing in appearance owing to the use of the periods as word-ornaments. On the cover of the dance program undue prominence is given to the word "the" at the top of the page.

A CATALOGUE for James McCrea & Co., from the press of the Claflin Printing Company, Chicago, is a creditable piece of work. It is printed in black and green on India tint stock, and contains numerous marginal half-tones as well as illustrations in the text. Careful arrangement and workmanship are shown throughout the specimen.

GLENN R. ROSS, Erick, Oklahoma.—Although the work of a fourteen-year-old apprentice, your specimen compares favorably with much of the work of journeymen. The use of blue and red as a color combination should be avoided, orange being used instead of red. The wide spacing in the upper left-hand panel was unnecessary.

H. J. COWLEY, Lowell, Arizona.—The printing of the cut on the letter-head in black gives it rather more prominence than the type matter. The arrangement is good, and with the use of colors which would subdue the cut and bring out the reading matter a little stronger an attractive letter-head would result. The cards are very unique specimens.

HENNIS PRINTING COMPANY, Mount Airy, North Carolina.—The folder is good in typography, presswork and color. A little care in the distribution of white space around the initial would have produced a more pleasing result. In the use of an initial letter of this kind from four to six points is sufficient between the letter and text, both at the side and bottom.

THE Ben Franklin Press, Brooklyn, New York.—Your specimens are neat in typographical appearance, but are rendered less effective by the colors which have been used. In every case where you have used green it has inclined too much toward the blue, and a yellow-green would have given much better results. The tint used on the statement heading is too strong.

"NIAGARA FALLS," a de luxe booklet designed and printed by The Gage Printing Company, Battle Creek, Michigan, for the Grand Trunk Railway, is an exceptionally artistic specimen. The text is printed on French hand-made paper and the numerous half-tone illustrations are printed on India tint paper and tipped on. The whole is bound flexible in the Roycroft style in oze sheep.

IRVING BATH, Hillsboro, Oregon.—The tendency in your two-color specimens is toward an almost equal division of the two colors, even when they are of like strength. This should be avoided. The use of a large amount of one color with a small amount of the other will produce results which are more pleasing. It is not the policy of this department to criticize specimens submitted by a competitor.

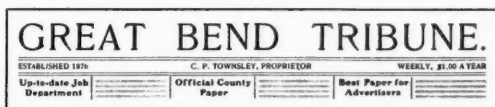
C. E. HUGHES, Duluth, Minnesota.—The card specimen submitted would have presented a much better appearance if the firm name had been letter-

spaced instead of putting such wide spacing between the words, the distribution of white in the first word being very uneven. The arrangement of the letter-head allows too little prominence to the merchant's name and too much prominence to his business. Reversing these proportions would produce better results for a letter-head.

AN exceptionally interesting package of specimens is at hand from H. & J. Pillans & Wilson, Edinburgh, Scotland, accompanied by a letter from which the following is an extract: "We have been established in Edinburgh for one hundred and twenty-five years, and we do not know if the progressive American thoroughly realizes the struggle which an old established firm such as ours has against tradition and use and wont. . . . Our house has lived through the stirring times immediately after the last Jacobite Rebellion in Scotland, about the end of the eighteenth century, the times of Trafalgar and Waterloo, and through the more peaceful days when Robert Burns and Sir Walter Scott were citizens here." The specimens submitted show a wide range of printing and are uniformly creditable. A book of cover-paper samples contains an artistic collection of cover-designs, both as to arrangement and color treatment. Numerous three-color book-illustrations are shown, as are also half-tones printed over tints.

WE have received from Mr. H. H. Bicknell, superintendent of the press of The Society for Promoting Christian Knowledge, Madras, India, a package of specimens which deserve more than passing notice. Chief among these is the "S. P. C. K. Calendar for 1906," and the following technical description will give a fair idea of the amount of labor necessary to its production. The groundwork is of mottled design printed in red, dark green and gold in that order, with tinted panels in flesh tint and steel gray, the letterpress being in bronze blue on the latter. The spaces for the dates are irregularly placed in ribbon form, with the months and Sundays rubricated. The top center is occupied by an oval panel showing the press building and employees, in half-tone, worked in olive-green double-tone ink. To produce the calendar eight different printings, in as many colors, were necessary. Other specimens embrace a wide range of booklet and commercial work, many of the booklets being printed in dialects. Considered as the work of natives who have had very little experience in jobwork, the results are very satisfactory.

ORIGINALITY is a noticeable feature in the work of the job department of the *Great Bend Tribune*, Great Bend, Kansas. The accompanying letter-head reproduction (Fig. 3) illustrates a unique handling for newspaper



Great Bend, Kansas.

FIG. 3.

stationery. The other rule and column headings are in red, balance in black. Other specimens submitted are very creditable.

THE following additional specimens have been received: From Winn & Hammond, Detroit, Michigan, attractive copy of *The Student*; from the Denver & Rio Grande Railroad two neat booklets, entitled "Crossing the Rockies" and "Fertile Lands of Colorado"; Times Printing House, Philadelphia, calendar for May; Union Bank Note Company, Kansas City, Missouri, artistic announcement for Columbus Buggy Company; Meyer Bros. Drug Co., St. Louis, Missouri, neat commercial specimens; Barnes-Crosby Company, Chicago, private mailing card showing well-printed booklet half-tones; M. Widman Printing Company, Utica, New York, artistic menu and program; McQuiddy Printing Company, Nashville, Tennessee, commercial specimens; Thomas Todd, Boston, Massachusetts, calendar for May; Kerr & Ridge, Pittsburg, Pennsylvania, blotter and four-page leaflet; S. F. Toof & Co., Memphis, Tennessee, carefully designed and well-printed house circular; Smith & Porter Press, Boston, Massachusetts, neat calendar; Lennis Brannon, Talladega, Alabama, tasty commercial specimens; The Nappanee News, Nappanee, Indiana, well-printed copy of the class annual of the Nappanee High School; The Pirsch Press, Dayton, Ohio, unique menu.

TYPE SPECIMENS.

A. F. WANNER & Co., Chicago, have issued a comprehensive showing of brass rule in the shape of a sixteen-page booklet. Rules of every description and for every purpose are described and the prices given.

SEVERAL booklets and folders are at hand from the Keystone Type Foundry, Philadelphia, advertising their different series of types. A unique booklet tells of the merits of Caslon Bold, while the Dickens, Admidal, Whittier and Encore extended series are each shown in a different manner.

A BOOKLET of Caslon types, issued by the Inland Type Foundry, is an excellent practical illustration of the utility of these faces. In it are shown the Caslon Old-style and Caslon Old-style Italic, New Caslon and New Caslon Italic and Caslon Text. A feature of the booklet is the showing, on opposite pages, of the same specimens set in both the old and the new Caslon. The workmanship on the specimens is quite in keeping with the usual superior quality of the publications of this firm.



THE office of the Coy Printing Press Company has been moved to 59 Plymouth place, Chicago.

THE Chicago office of the Big Four Printing Ink Company is now located at 401 Dearborn street.

WALTER SCOTT & Co., manufacturers of printing-presses, removed their Chicago office on May 1 from 321 Dearborn street to 1643 Monadnock building.

THE business heretofore carried on under the name of the R. L. Polk Printing Company, Ltd., will in the future be conducted as the American Printing Company, Ltd., at 65-69 Congress street, West, Detroit, Michigan, the latter company having assumed all liabilities of said R. L. Polk Printing Company.

McILROY & EMMET, printers and stationers, 22 Thames street, New York, announce under date of May 15, the admittance of Mr. Frank R. Smith as a partner in the firm. The announcement pays the following tribute to the new partner: "Mr. Smith has merited this advancement by his unfailing attention to business and devotion to the interests of the firm and its patrons during the twenty years of his connection with us." The honors are equal in this pleasing incident.

WILD & STEVENS, manufacturers of printers' rollers and composition, 5 Purchase street, Boston, Massachusetts, have issued a handsome booklet telling the story of the development of the business from its inception in 1859 to the present time. The booklet consists of thirty-two pages, 7½ by 9¼ inches, in two colors, on heavy coated paper, with cover in three colors. It is illustrated by half-tones of the building, office and works, and portraits of Mr. C. P. Stevens and Mr. Frank H. Stevens. The work bears the imprint of the Barta Press, Boston, and does not detract anything from the reputation that concern bears for turning out fine printing.

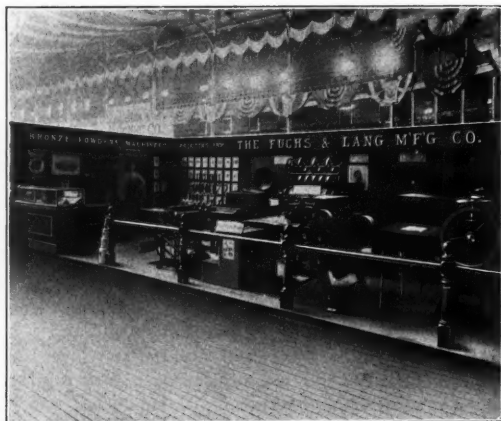
THE Lanston Monotype Machine Corporation, of London, announce another sale of Monotype machines to the Indian Government consisting of sixteen casters and twenty keyboards. This, as stated, is the second order and gives an equipment of twenty-two casters and thirty keyboards in the printing-office of the Indian Government. Taken in connection with the advertisement recently issued by the Lanston Monotype Machine Company, of America, that the Monotype machine is used by the government of nearly every civilized country, it is obvious that the adaptability of the machines to all kinds of work has met a severe test and that the result has been a signal success.

IN common with practically all the other business interests of San Francisco, the newspapers and printing plants of that city suffered a total loss of buildings and publication plants. The *Examiner's* plant was first to go, evidently being destroyed by the earthquake. The *Call's* magnificent building was burned soon after, the *Chronicle's* followed, and finally, after a last effort to get out papers, the building of the *Evening Bulletin* had to be abandoned to flames. San Francisco had also the *Evening Post*, *Commercial News and Shipping List*, *Journal of Commerce*, *Evening News*, *Morning Recorder* and the *News Bureau*, together with a German daily, two Chinese dailies, a French daily and an Italian daily. These are all gone,

together with its long list of trade journals and general publications. Steps are being taken to restore them, however, and thirty-six hours after the disaster a consignment of Linotypes left New York by express for the coast.

REPRESENTATIVES of the craft were in evidence at the tenth annual meeting of the American Academy of Political and Social Science at Philadelphia on April 6 and 7. The general topic of the meeting was "The Improvement of Labor Conditions in the United States," and Mr. S. B. Donnelly, of New York, former president of the International Typographical Union; Mr. George H. Ellis, of Boston, president of the United Typothetae; Mr. William B. Prescott, a contributor to *THE INLAND PRINTER*, and Mr. A. Beverly Smith, of the New York Lithographers' Association, spoke on the sub-topic, "The Settlement of Industrial Conflicts with special reference to the Trade Agreement." Mr. Ellis dilated to some extent on the eight-hour struggle, but Messrs. Donnelly and Prescott stuck closely to the text laid down by the academy. Mr. Smith explained and urged the beauties of the mutual government system which prevails among lithographers and is an adaptation of the plan in vogue in the German printing trades. The other sub-topics were, "The Length of the Working, or Trade Life," "The Industrial Condition of the Negro in the North," and "The Condition of Working Women in the United States."

THE Advertising Show at Madison Square Garden, New York city, May 3 to May 9, gave interesting demonstrations by the various manufacturing interests in the graphic arts. Prominent among the advertisers were the following: The American Multigraph Company, 338 Broadway, New York city, showing their celebrated Multigraph Machine, which reproduces letters which are an exact counterpart of typewriting, the entire letter being



FUCHS & LANG EXHIBIT NEW YORK ADVERTISING SHOW.

printed through a ribbon. Isaac H. Blanchard Company, 286 Canal street, New York city, showing a high-grade line of printing, booklets, folders, catalogues and novelties. C. R. Carver Company, Philadelphia, Pennsylvania, operating their celebrated embossing presses. Dexter Folder Company, Pearl River, New York, showing their folders and automatic feeders. R. R. Donnelley & Sons Company, Chicago, showing a wide range of possibilities in printing, catalogue and book printing. Dunning Brothers, Incorporated, 133 William street, New York city, showing their deckle-eding machine in operation. Also a booktrimming and punching machine and mother-of-pearl engraved stationery. Fuchs & Lang Manufacturing Company, 29 Warren street, New York city, and Chicago, Illinois, showing a full line

of printing, lithographing, embossing and bronzing machinery, printing and lithographing inks and bronze powders. Mansfeld Machine Company, 193 Center street, New York city, showing a full line of embossing, lithographing, printing, stamping and cutting machines. Latham Machinery Company, 8 Reade street, New York city, and Chicago, Illinois, showing a full line of bookbinders' and printers' machinery, wire stitchers, etc. The Matthews-Northrup Works, Madison Square Garden Tower, New York city, and Buffalo, New York, displaying a large and varied line of booklets, calendars, folders, maps, illustrations and designs in a large variety of processes. J. L. Morrison Company, 143 Worth street, New York city, exhibiting their Perfection Wire Stitching Machines, bookbinders' and printing machinery and supplies. The Meyercord Company, Chamber of Commerce, Chicago, Illinois, showing a full line of Meyercord opalescent window signs, transfers, decalcomania, etc., also a line of leather hides with advertisements transferred in colors. Nind Letter Folder Company, 141 South Clinton street, Chicago, Illinois, exhibiting the Nind Letter Folder, which automatically folds paper of various sizes in one or more folds. The Oswald Publishing Company, 23 City Hall place, New York city, publishers of the *American Printer*, a monthly publication devoted to all that is best in printing; also displaying a line of booklets, folders, prints, etc. The J. W. Pratt Company, 52 Duane street, New York city; exhibiting a large and varied line of booklets, calendars, novelties, folders and stationery. Quadri Color Company, 32 Union square, New York city, displaying their four-color process printing, as shown in an exhaustive line of booklets, calendars, prints, covers, etc. The *Printing Art*, Cambridge, Massachusetts, a monthly publication devoted to high ideals in printing and the allied arts. Edited by Henry Lewis Johnson. *Profitable Advertising*, Boston, Massachusetts, a monthly advertising magazine, presenting every phase of advertising in a masterful way. Edited by Kate Griswold. Also showing a full line of books devoted to advertising. Rogers & Co., 15 Murray street, New York city, and Chicago, Illinois, showing a superior line of booklets, calendars, designs and high-art prints. Sterling Engraving Company, 96 Reade street, New York city, showing a full line of designs, illustrations and prints. Robert L. Stillson Company, 122 Center street, New York city, operating a model printing plant and showing a large range of products in printing, designing, illustrating, embossing, compiling, catalogue and booklet making. Woodward & Tiernan Printing Company, St. Louis, Missouri, showing an attractive line of souvenirs, bas-relief signs, showcards and calendars, also a large line of novelties, booklets, illustrations and designs by a large variety of processes. F. Wesel Manufacturing Company, 70 to 80 Cranberry street, Brooklyn, New York, exhibiting a line of printing machinery, inks and supplies, electrotypers', engravers' and stereotypers' machines and supplies, electrotpe cabinets, etc. L. A. Westermann, 41 Union square, New York city, showing a large and varied line of fashion designs and art studies. Whitlock Printing Press Company, Fuller building, New York city, exhibiting Whitlock printing-presses. Winthrop Press, 419 Lafayette street, New York city, showing an exceptionally high-grade line of folders, booklets, novelties and process prints.

Look in *Printers' Ink* and you will see that *THE INLAND PRINTER* is the only paper in the printing trade entitled to the GOLD MARKS proving the *quality* of its circulation, and to a place on the Roll of Honor proving the quantity of its circulation. Its subscription price is as high as the highest and its list is steadily growing, both at home and abroad.



THE Chicago Paper Company has issued a neat booklet devoted to an explanation of its sample sets and their uses. The cover is printed in a shade and a tint of blue on blue-tinted stock and the body of the booklet is printed in brown and a tint of orange.

THE May number of "Pure White," issued by The Champion Coated Paper Company, Hamilton, Ohio, is quite in keeping with the usual standard of this interesting publication. The illustrations are well printed and the text is interesting reading for the buyer of coated papers.

A BOOKLET issued by The Lewis Publishing Company, St. Louis, Missouri, publishers of *The Woman's Magazine*, *The Woman's Farm Journal* and *The Woman's National Daily*, shows interesting half-tone illustrations of the officers, buildings and different departments devoted to the publication of those journals.

THE Stuff Printing Concern, Seattle, has issued a unique advertisement entitled, "The Book of Stuff." It consists of eight pages, 7 by 11 inches in size, and is printed in dark-brown ink on light-brown, rough stock, with the illustrations printed on India tint paper and tipped on. The text consists of a strong argument for the products of the firm.

A "CATALOGUE OF CAPABILITIES," issued by H. & J. Pillans & Wilson, Edinburgh, Scotland, sets forth in an interesting manner, and with numerous excellent half-tone illustrations, the ability of this firm to handle anything in the line of printing and advertising. It is well printed and shows suggestions for commercial printing and advertisement composition.

AN attractive advertising device is used by The Philadelphia Press. It is in the shape of a folded mailing card with a facsimile copy of the paper tipped over the fold in such manner that when the card is opened the paper assumes the shape of an umbrella. The title of this clever device is "Get Under the Press Umbrella." It will certainly attract attention.

A COPY of the initial number or "flight one" of "Berlin's Flyer" a house organ issued by Berlin & Jones Envelope Company, New York, has reached this department. It is attractive and well printed and contains numerous half-tone illustrations of the firm's different departments as well as a convincing argument in favor of the products advertised.

AN interesting booklet is that issued by the Cahill & Hinds Company, Chicago, entitled, "Type; a Little History." It deals in a brief way with the history of printing and is illustrated with marginal cuts showing different methods employed by the ancients for recording. The cover of the booklet is printed in silver bronze in the shape of a type letter and die-cut. It is a very clever execution.

FROM the *Berliner Morgenpost*, Berlin, a unique calendar has been received. It consists of a twenty-eight-page booklet 7½ by 2½ inches in size. Each month is given two opposite pages, the even folio having an illustration of some department of the newspaper plant and a memorandum blank, and the odd folio containing the calendar and a decorative tree design. This design is carried through

the booklet and is drawn to illustrate the growth for each month — whether laden with buds, flowers, or fruit. The whole forms a very interesting specimen.

"A SOUVENIR OF QUALITY" is the title of an artistic publication issued by The Republican Publishing Company, Hamilton, Ohio. It consists of a handsome booklet, 10 by 13 inches in size, containing reproductions of catalogue cover and text pages taken from their run of work. The typography, presswork and embossing are exceptionally well handled, especially the half-tone illustrations of mechanical subjects.

AN interesting exhibit of the capabilities of the Mergenthaler Linotype is shown in a booklet arranged and printed by the University Press, Cambridge, Massachusetts. Book pages set in modern, old-style, text, German, Greek



and Hebrew faces, announcements, programs, menus, advertisements and commercial work — all the work of the Linotype — bear evidence to its general utility. The booklet is in keeping with the high quality of the productions of the University Press. A reproduction of the title-page, an artistic bit of type-design, is shown.

"OTHER things being about equal, the most successful advertising literature is that which is most attractive in appearance." The above quotation from *Promotion*, a house organ published by The Buston Company, Cardiff, Wales, reveals the reason for the failure as an advertising proposition of much of the literature sent out. This applies to the advertising done by printers for themselves as well as that done by them for others. This should not be so. While cheapness may be a desirable quality and appearance count for little in some lines, the very nature of the argument advanced by the printer in soliciting business demands that his "paper salesman" be of the highest quality. In casting about for a printer to produce advertising literature which will pull trade the merchant would hardly be expected to select one who used for his own publicity inferior printed matter. The natural conclusion

would be that the printer who could not advertise his own business attractively would be a poor person to give publicity to the business of the merchant. There is considerable complaint among the printing fraternity about being hampered in the production of fine work by the desire of the customer to cut down the prices by the substitution of a cheaper quality of stock or dispensing with an additional color when such a color would be a great advantage. This is undoubtedly true, but in a great many cases the merchant is but following the example of the printer himself. The booklet, for instance, when used by the printer, should not only be carefully prepared as to the argument, but the design and workmanship should be something more than that which would be adopted for a book of by-laws or reports. And yet many printers' booklets are much after this style, with unattractive covers, reading matter which commences with "We beg to announce" and ends with "Hoping to receive a continuation of your favors, etc." These are most successful candidates for the wastebasket. The printer, of all advertisers, should be the one to place a premium on originality and an attractive appearance.

AMERICAN exporters who have been sending their goods to Germany have been caught in a veritable *cul de sac*. A recent adjudication before the German imperial court establishes the legal precedent that a trade-mark registered in Germany, no matter how long a foreign firm may have used the mark, if placed on its goods makes them liable to seizure when they arrive at German customs houses. Recently, it is reported, an American house shipped to one of the ports of entry, on order from a German buyer, in original packages a lot of goods bearing their old and long-used trade-mark. This particular mark was registered a few years prior by a German firm and when the goods arrived they were seized by customs officials at the instance of the German who had registered the mark. The defense set up was, a claim for damages on account of wrongful seizure. The action of the customs officials was upheld by the lower court and by the imperial court to which an appeal was taken. The German courts, by the trade-marks act of May 12, 1894 (Section 17), are empowered to sustain any seizures, made in the interest of German tradesmen, as against foreigners. Any German firm, so disposed, can hold up exporters by registering the trade-marks of any reputable concern, exploit the same as vigorously as possible and then have the real owner of the trade-mark suffer the seizure of his goods.

A NEW WESTERN MAGAZINE.

One of the latest aspirants for favor in the journalistic field is the *Western Homeseeker*, a monthly magazine published at Missoula, Montana. As its name implies, the *Western Homeseeker* is thoroughly Western in character, and is designed to give accurate information concerning openings and opportunities in the great West. Its pages teem with interesting reading matter, and there are numerous very fine half-tone illustrations. One unique feature of the publication is a page devoted to what is known as the "Personal Opportunity Department." In this department is given information concerning specific openings and opportunities for individuals throughout the Northwest. This can not fail to be of great interest to a large number of people who are seeking to better their conditions by a change of location. The *Western Homeseeker* has recently joined the ranks of the popular 10-cent magazines of the day, and has reduced its yearly subscription price to \$1. This magazine has a field of its own and apparently has the brightest prospects for success.



This department is exclusively for paid business announcements of advertisers, and for paid descriptions of articles, machinery and products recently introduced for the use of printers and the printing trades. Responsibility for all statements published hereunder rests upon the advertisers solely.

PHOTOENGRAVERS should take note of the "Chartreux Celloidin Emulsion" which is in general use in Europe and is now being introduced in America. It is specially prepared for the direct and indirect three and four color process, for reproduction from nature, drawings or oil paintings, preserving all the delicate shades of the original subject. It is said its superiority to dry plates consists in its great color-sensitiveness, durability, clearness and economy and that it is color-sensitive to all rays of the spectrum. George Murphy, inc., 57 East Ninth street, New York city, is sole agent.

THE Tubbs Manufacturing Company, of Ludington, Michigan, who have come into prominence rapidly by their unusual progressiveness and way of "doing things," are offering to the trade another composing-room time-saver in their patent rubber-faced furniture, announcement of which was made in the May number of THE INLAND PRINTER. This material is used for locking-up purposes, and the manufacturers claim for it a great saving of time when used in connection with Monotype matter, Linotype slugs, as well as with movable type, and especially is it desirable for tabular pages. It is claimed that it does away with the working-up of spaces and quads, prevents pulling-out of type. The company send a guarantee with each shipment. It is put up in labor-saving fonts, and may also be had by the yard. The Tubbs people report unusual demands, and it is stated they hardly find it possible to keep up with their orders.

MR. WILLIAM BROWN, of the William Brown Engraving Company, formerly of 417 Montgomery street, San Francisco, California, now doing business at his residence, 1208



Laguna street, having had his place of business destroyed with its entire equipment, has been visiting Chicago purchasing new machinery and materials to resume business, filled with the courage and enterprise which have marked the spirit of his fellow citizens facing their recent great disaster. Mr. Brown has recently patented a process for

perfecting the method of mounting process cuts, an illustration of which is here shown. Mr. Brown desires to arrange with photoengravers to use these blocks on a royalty basis and invites correspondence. His claims for his process state that this patent backing gives a true and rigid impression, thus doing away with tedious and costly make-ready. "There are two methods of mounting cuts on this patent block—one by sweating the cut to the block, which saves one-quarter inch of space, thus allowing type matter to run close to cut—the other method (when not pressed for space) is to bevel plate and tack on patent mount. This operation is not as costly as the sweating process. It has all the advantages of the former, but does not save bevel space around edges of plate. This method affords the use of this patent backing for a trifle more than you are now paying for wood mounts."

KEYSTONE TYPE FOUNDRY OPENS A LARGE BRANCH HOUSE IN CHICAGO.—The Keystone Type Foundry, with its own branch houses in New York, Detroit, Atlanta and San Francisco, and selling agencies throughout the country, has leased the premises 529-531 Wabash avenue, Chicago, known as the Ludington building, which have been fitted up for their occupancy. Mr. George R. Smith (formerly of the firm Champlin & Smith), is manager. With some twelve thousand (12,000) square feet of floor space and the best and most complete facilities for handling Keystone Nickel-alloy Universal Line Type, Printers' Furniture and Supplies, and with an efficient force of capable and experienced people, nothing will be lacking in giving prompt and satisfactory service to customers—the new house naturally being the point of distribution for Chicago and the Middle West. The Keystone is an independent concern incorporated under the laws of Pennsylvania, not a share of its stock being held by any other typefounding concern or any one connected with any other foundry. It is noted for progressiveness and the excellence of its products and service. These have made it possible for this foundry to attain growth and popularity in a few years to an extent never before enjoyed by any other typefounding concern in this country. Its Chicago location is well within the new printing district, the Ludington building being one of the most important fire-proof structures in the city occupied by printers and publishers. Other large buildings of a similar class in the immediate vicinity are now occupied by some of the largest printers, publishers and engravers in the country. These and other projected buildings of high class for use by printers and the tendency of this class of trade to go south along Wabash avenue, make it certain that the near future will see the Keystone Chicago house in the center of the most important printing district. Mr. Smith has for many years been closely in touch with printers and publishers in Chicago and vicinity, and those who have dealt with him heretofore need no assurance that business intrusted to him and the foundry he represents will be well handled. The Keystone's Chicago house, as elsewhere, will be worthy of the city in which it is located and of the patronage it seeks from the great printing and publishing houses of the Middle West. Its stocks will be complete and adequate to meet the large demands sure to follow. Its doors will be opened for business early in June.

A NEW WESEL CATALOGUE.

The F. Wesel Manufacturing Company has just issued a new catalogue of printing machinery, appliances, tools and materials, consisting of 246 pages of illustration and closely printed text. Considering the large line of exclusive

specialities manufactured by the F. Wesel Company for the use of job and newspaper printers, this catalogue is easily the most comprehensive purchasing list ever placed before the printing public. It is a thorough departure from the great majority of machinery catalogues, as every particle of information that the prospective purchaser could wish to have at hand is given in its pages. For this reason alone it will be highly valued. Every printer in the trade should see that he gets a copy of this new Wesel catalogue.

HENRY O. KLEIN

EXPERT IN COLLODION EMULSION.

The collodion emulsion process as applied to three-color work has been more or less of a failure in this country. Various difficulties are encountered which make the success it has achieved in England a matter of doubt and speculation in this country.

A careful analysis by the United Printing Machinery Company convinced them that the employment of the best expert that could be found to remove the troubles would be considered as a favor by the trade in general. They accordingly, after careful consideration of the chemical conditions of light, water and heat in this country as compared with Europe, placed the result of their observations



HENRY O. KLEIN, F.R.P.S.

in the hands of the Penrose Company, of London, who assisted them in securing Mr. Henry O. Klein, the foremost expert in Europe on the emulsion process. He is now in this country and prepared to demonstrate at the various branches of the United Printing Machinery Company the working of the collodion emulsion as applied to three-color work. The emulsion which he demonstrates, and which is to be handled by the United Printing Machinery Company, has been specially prepared for American conditions and has already experimentally demonstrated its success. There is no doubt that with ordinary intelligence and a following of Mr. Klein's directions this collodion emulsion for three-color work should become a commercial success free from the vexatious failures that have attended the use of Doctor Albert's collodion emulsion in this country. It will

give confidence to the trade after their unfortunate experience with other collodion emulsions, if they will glance through this short sketch of Mr. Klein's life.

Mr. Henry O. Klein was born in Vienna, Austria, 1871. After passing the grammar school, he studied art at Vienna and the Berlin (Germany) Academy. Joining the Imperial High School of the Graphic Arts in Vienna, he studied chemistry and photochemistry under Doctor Eder. Coming to England in 1893, he joined the Photochromatic Company and later the Heliochrome Company in London. Mr. Klein instructed in three-color photography the prominent firms of Spain, Switzerland, Germany and Austria. In 1899 he joined Messrs. Penrose & Co., of London. Later Mr. Klein studied with Doctor Albert the collodion emulsion process and introduced the first three-color direct half-tone process with collodion emulsion and invented the well-known and widely used "Klein Light Filters" and special sensitizers. Baron von Hübl's "Three-color Photography" owes its production in English to Mr. Klein's technical knowledge and ability as a translator.

This special collodion emulsion, prepared to suit American conditions of working with the special sensitizers, will be handled by the United Printing Machinery Company. Mr. Klein will demonstrate at their various branches the method of working the emulsion. Mr. Klein's stay in this country will be short. Photoengravers wishing to avail themselves of his services should communicate with the United Printing Machinery Company at once, as they have charge of his itinerary.

SOCIETY EMBLEMS.

Printers who have heretofore been unable to secure satisfactory cuts from which to print emblems of various secret societies should send to the R. Carleton Engraving Company, 218 South Fourteenth street, Omaha, Nebraska, for their latest lodge cut catalogue. A comprehensive line of original designs is shown, for one or more colors, and special designs will be made to order.

CROWN ENGRAVING PLATES.

The majority of the newspapers of the world, making their own illustrations, use these plates because they are the cheapest, quickest and most satisfactory. These plates are designed to reproduce the finest and most intricate line work and are absolutely guaranteed. Any artist can use the plates satisfactorily after a very little practice and will soon be convinced that his finest work will be accurately reproduced; that each line will be clear, sharp and distinct, and that the most intricate shading or crosshatching will appear in the print just as he makes it on the plate. The Hoke chalk plates were selected, after a competitive test, as the best on which to make the United States Weather Bureau maps. The prices quoted in the advertisement of the Hoke Engraving Plate Company in this paper include a complete stereotyping apparatus.

PROMINENT RAILROAD MAN GOES TO NEW YORK.

The close identification of the railroad business with the printing trade renders it appropriate to note the advancement of one of the most popular railroad officials in Chicago, Mr. George A. Cullen, General Western Passenger Agent of the Delaware, Lackawanna & Western Railway, who has been appointed general passenger agent of that road, succeeding Thomas W. Lee, resigned, effective on July 1. Mr. Cullen was born in St. Louis in 1867, and entered the service of Pullman's Palace Car Company in 1883 as a clerk. He was clerk in the auditor's office of the Wabash, rate clerk for the Missouri Pacific, chief rate clerk

of the Southern States Passenger Association, chief clerk of the passenger department of the Plant System, and chief rate clerk and chief clerk of the Western Passenger Association at Chicago. He was appointed general agent of that association at New York in July, 1898, which position he resigned in December, 1899, to become general western



GEORGE A. CULLEN.

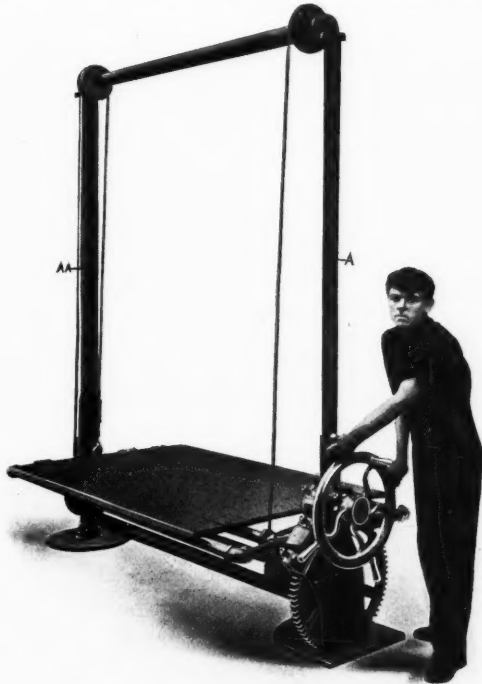
passenger agent of the Delaware, Lackawanna & Western. He has been one of the most active and useful members of the Hamilton Club, and is at present a director.

CLARENCE W. THOMPSON.

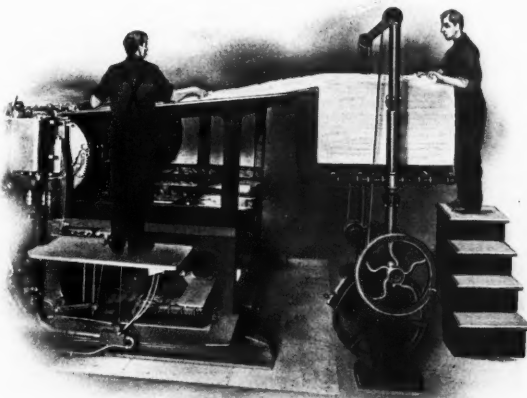
The Barnhart Type Foundry Company, of New York, announce Clarence W. Thompson as their representative in the Empire State. Mr. Thompson is not a stranger to the master printers throughout this particular section, having called on them for several years in the interest of the Buffalo branch of the American Type Founders Company. He is thirty-seven years old, and has been identified with the printing business since the beginning of his apprenticeship in the office of Ex-State Treasurer Colvin at Glens Falls, New York, twenty-five years ago. Completing his apprenticeship, and desiring to broaden his knowledge, he removed to New York, and identified himself with one of the leading publishing houses of the time, gradually winning promotion that carried him to an enviable position in the trade. Mr. Thompson's ability has best shown itself in the selection of equipment for printers establishing new plants, being credited with placing many well balanced and successful printing-offices throughout the State. As a fire insurance appraiser in printing-office losses, he has been selected times without number, being a favorite choice with master printers in representing their interests at the time of a contest over loss. He will make his headquarters at 401 South Warren street, Syracuse, New York, which places him in the center of his territory and within easy traveling distance of his numerous customers.

THE HAMMER PAPER LIFT.

A new device for saving stock, time and labor in the pressroom is illustrated in the accompanying cuts, showing the Hammer Paper Lift, the invention of Mr. J. C. Hammer, 1283 Townsend avenue, Detroit, Michigan, who



has an experience of twenty-five years as a pressman in the handling of cylinder presses, and has given years of study to the problem of increasing the productivity of cylinder presses. The lift, insuring continuous feeding, increases



the capacity of presses from one thousand five hundred to two thousand daily. It saves spoilage in the handling of large sheets, and is substantially constructed of the best materials. It can also be moved about as desired. Full descriptive circulars will be sent on request. The low price of the device and its many obviously substantial advantages assure its general adoption.

S. P. PALMER, NEW YORK MANAGER FOR THE AMERICAN FALCON PRESS COMPANY.

Mr. S. P. Palmer, the manager of the New York branch of the American Falcon Printing Press Company, has had an extensive experience in all lines in the printing art. His first experience in the trade was in connection with the type and printing machinery business of Palmer & Rey Type Foundry in 1883, taking the New York agency for that firm in 1886. In 1892 Palmer & Rey sold out to the American Type Founders Company, and Mr. John J. Palmer, president of the former concern, purchased the Toronto Type Foundry, Toronto, Canada, closing at the same time the purchase of the American patents for the



MR. S. P. PALMER.

Falcon platen press and the Waite die press. Mr. S. P. Palmer was associated with Mr. J. J. Palmer in these enterprises, and was given the important position of manager of the New York branch for the presses named. There are many important economic features in these presses. Their great strength, accessibility, simplicity and directness of movement, and capacity for high speed on the lightest and on the heaviest forms give them a range of usefulness that is appreciated by the trade, the proof being that the orders are far ahead of the output of the manufacturers. Mr. Palmer is a careful student of printing-press mechanism, and having a thorough knowledge of printers' needs, his advice and suggestions are of substantial value in the selection of money-making equipment for the progressive printer.

WORK AND THE EYES.

The influence of occupations upon the eyesight is strikingly illustrated by statistics collected among the schools of Germany and France. In Germany it has been shown that fifty per cent of those engaged in the so-called liberal professions suffer more or less from myopia, or shortness of sight, whereas among laborers the percentage drops to five, and among peasants to only a half of one per cent.

The remarkable growth of myopia with increase of attention demanded by schoolwork is indicated by the fact that the eyes of only six per cent of the scholars in the primary schools of France are affected, but those of more than twenty per cent in the secondary schools. In the College Rollin, fifteen per cent of the scholars have myopia in the lower grades, thirty-two per cent in the third grade and fifty-five per cent in the courses in philosophy.—*The Keystone*.

WANT ADVERTISEMENTS.

We will receive want advertisements for THE INLAND PRINTER at a price of 50 cents for 20 words or less, each additional 10 words or less 25 cents, for the "Situations Wanted" department; or 80 cents for 20 words or less, each additional 10 words or less 40 cents, under any of the other headings. Address to be counted. Price invariably the same whether one or more insertions are taken. **Cash must accompany the order to insure insertion in current number. The insertion of ads. received in Chicago later than the 18th of the month preceding publication not guaranteed.**

BOOKS.

A POCKET COMPANION for Linotype operators and machinists; price, \$1. S. SANDISON, 318 W. 52d st., New York, N. Y.

COST OF PRINTING, by F. W. Baltes, presents a system of accounting which has been in successful operation for many years, is suitable for large or small printing-offices, and is a safeguard against errors, omissions or losses; its use makes it absolutely certain that no work can pass through the office without being charged, and its actual cost in all details shown; 74 pages, 6 1/2 by 10 inches, cloth, \$1.50. THE INLAND PRINTER COMPANY, Chicago.

DRAWING FOR PRINTERS, a practical treatise on the art of designing and illustrating in connection with typography; containing complete instructions, fully illustrated, concerning the art of drawing, for the beginner as well as the more advanced student, by Ernest Knauff, Editor of *The Art Student*, and Director of the Chautauqua Society of Fine Arts; 240 pages, cloth, \$2 postpaid. THE INLAND PRINTER COMPANY, Chicago.

ELECTROTYPING, a practical treatise on the art of electrotyping by the latest known methods, containing the historical review of the subject, full description of the tools and machinery required, and complete instructions for operating an electrotyping plant, by C. S. Partridge, Editor of "Electrotyping and Stereotyping" department of THE INLAND PRINTER; 150 pages, cloth, \$1.50 postpaid. THE INLAND PRINTER COMPANY, Chicago.

PRACTICAL FACTS FOR PRINTERS, by Lee A. Riley; just what its name indicates; compiled by a practical man, and said to be the most practical little book ever offered to the trade; 50 cents. THE INLAND PRINTER COMPANY, Chicago.

PRACTICAL GUIDE TO EMBOSSEING, written by P. J. Lawlor, and published under the title "Embossing Made Easy;" we have had this book thoroughly revised and brought up to date, and added a chapter on cylinder press embossing; contains instructions for embossing by the various methods applicable to ordinary job presses, for making dies from various materials readily obtained by every printer; also for etching dies on zinc; there are cuts of the necessary tools, and a diagram showing the operation of the dies when put on the press; 75 cents. THE INLAND PRINTER COMPANY, Chicago.

PRESSWORK, a manual of practice for printing pressmen and pressroom apprentices, by William J. Kelly; the only complete and authentic work on the subject ever published; new and enlarged edition, containing much valuable information not in previous editions; full cloth, 140 pages, \$1.50. THE INLAND PRINTER COMPANY, Chicago.

THE RUBAIYAT OF MIRZA MEM'N, published by Henry Olendorf Shepard, Chicago, is modeled on the Rubaiyat of Omar Khayyam; the delicate imagery of Old Omar has been preserved in this modern Rubaiyat, and there are new gems that give it high place in the estimation of competent critics; as a gift-book nothing is more appropriate; the binding is superb, the text is artistically set on white plate paper, the illustrations are half-tones from original paintings, hand-tooled; size of book, 7 3/4 by 9 3/4, art vellum cloth, combination white and purple or full purple, \$1.50; edition de luxe, red or brown India ooze leather, \$4; pocket edition, 3 by 5 1/2, 76 pages, bound in blue cloth, lettered in gold on front and back, complete in every way except the illustrations, with full explanatory notes and exhaustive index, 50 cents. THE INLAND PRINTER COMPANY, Chicago.

VEST-POCKET MANUAL OF PRINTING, a full and concise explanation of the technical points in the printing trade, for the use of the printer and his patrons; contains rules for punctuation and capitalization, style, marking proof, make-up of a book, sizes of books, sizes of the untrimmed leaf, number of words in a square inch, diagrams of imposition, and much other valuable information not always at hand when wanted; 50 cents. THE INLAND PRINTER COMPANY, Chicago.

BUSINESS OPPORTUNITIES.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

A PHOTOENGRAVING PLANT FOR SALE in a city of 190,000 located in New York State, having a good established business; will dispose of it at a reasonable figure; ill health cause of selling; a good chance for a live, energetic photoengraver. C 351.

AN OPPORTUNITY is offered for a practical man with business ability to acquire an interest in a well-established engraving concern in Boston, Mass.; very little capital required, as the man is wanted more than the money. C 342.

EXCELLENT BUSINESS OPPORTUNITY for one or two printer-operators with some capital; well-established, paying Linotype business; no competition; full investigation invited. C 349.

FOR LEASE to responsible printer the *Morning News* job office, modern and complete. For particulars address "NEWS," Canton, Ohio.

FOR SALE—Fine job-printing plant at Albuquerque, New Mexico; population 15,000, finest climate in the world, well-established trade, central location; one 8 by 12 Gordon, one 12 by 18 Gordon, and one 9 by 14 Pearl press, 9 type cabinets full of choice type, wire stitcher, 25-inch paper-cutter, perforator, round corner machine, safe, desk, and all equipments to a first-class office doing a business of about \$700 a month; can be increased to \$1,000 by personal attention of owner; will sell at actual inventory, somewhere between \$3,500 and \$3,800; one-half down, balance on time to suit; can be made to pay out in a year; present owners engaged in other business. F. A. STORTZ, Secretary, Albuquerque, New Mexico.

FOR SALE—First-class job-printing plant; good location; 2 electric motors, 1 Whitlock cylinder press, 3 job presses, 1 power paper-cutter, wire stitcher, abundant supply of type, and other necessary things going to make up full outfit. FLOYD R. POOLE, Battle Creek, Mich.

FOR SALE—Job-printing plant in Chicago; modern; \$3,000 value for \$1,800; established trade; one-half cash, balance time payments; owner leaves city; exceptional opportunity. WM. SCHWARZ, 346-348 Wabash av.

FOR SALE—Thoroughly up-to-date 3-press litho plant in Illinois city of 50,000 inhabitants; plant has established trade of 10 years' standing. C 238.

Publishing.

PROFITABLE PRINTING INSURED by owning good periodical; I sell publications exclusively. EMERSON P. HARRIS, Publishing Property, 253 Broadway, New York.

FOR SALE OR EXCHANGE.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

BOOKBINDERS' MACHINERY—Smyth No. 3 New Model sewing machine, Chambers' quadruple folding machine, embossing and inking press, and other bindery machinery at low prices. HENRY C. ISAACS, 10 Bleeker st., New York.

CYLINDER PRESSES CHEAP—One each: Hoe 2-revolution, 4-roller, air springs, table distribution, tapeless delivery, 4 tracks, box frame, side and overhead steam fixtures, complete; bed sizes, inside bearers, 32 by 47, 36 by 51, 38 by 55, 45 by 60; One Cottrell 2-revolution, 4-roller, bed 27 by 37, air springs, table distribution, front fly delivery, complete, side and overhead steam fixtures, trip, back-up; one Babcock pony drum, bed 27 by 38, 2 form rollers, air springs, rack and screw distribution, tapeless delivery, back-up, side and overhead steam fixtures; one Cottrell drum, bed 27 by 39, 2-roller air springs, rack and screw distribution, tapeless delivery, box frame, side and overhead steam fixtures; all in first-class order. Will be sold very cheap, on easy terms, f. o. b. cars. Address at once E. H. PALMER, 164 Federal st., Boston, Mass.

FOR SALE—Complete photoengraving plant, cheap. C 356.

GAS AND GASOLINE ENGINES that have been used and put in perfect condition; fully guaranteed. COLBORNE MFG. COMPANY, 35 Indiana st., Chicago.

WILL BE SOLD CHEAP—One Monitor paging and numbering machine; one 36-inch Hickok ruling machine, with Blackhall striker; one 44-inch Hickok ruling machine, feint line; one iron standing press with ratchet, 25 by 33; one roller backer, 13-inch jaw; 2 Semple trimmers; one Stonemetz folder—3 or 4 fold; one 32-inch iron board shears; two 20 by 28 6-rod standing presses; one Sanborn large size bench stamper. BLACKHALL MFG. CO., Buffalo, N. Y.

HELP WANTED.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

ARE YOU LOOKING FOR WORK? File your name with The Inland Printer Employment Exchange, and it will reach all employers seeking help in any department. Situations were secured during the past month for the following: Job-printers, 10; Linotype operators, 10; machinist-operators, 5; foremen, 4; all-round men, 4; bookbinders, 5; solicitor, 1; stonemen, 2; compositors, 2; artist, 1; pressmen, 15; proofreader, 1. Registration fee, \$1; name remains on list until situation is secured; blanks sent on request. THE INLAND PRINTER COMPANY, Chicago.

Artists.

COMMERCIAL ARTIST WANTED—First-class on lettering, retouching, quick on sketches and designs; good chance for a young man to secure a good position; send samples of work and apply to SANDERS ENGRAVING CO., Branch, Memphis, Tenn.

Knife Grinders

Machines sent on thirty days' trial to responsible parties. If interested, write us. Complete Bindery outfits.

THE BLACKHALL MFG. CO., 12 Lock St., Buffalo, N. Y.

SIMPLE—AUTOMATIC—GUARANTEED

Using Emery Wheels Arranged for Wet or Dry Grinding.

NOTE—Sizes given are for length of knife (not width of cutter).

Style E—To stand on bench. Dry grinding only. 26-in. \$50, 32-in. \$55, 38-in. \$60.
Style A—With iron stand. Wet or dry grinding. 26-in. \$75, 32-in. \$85, 38-in. \$90, 44-in. \$100, 54-in. \$115, 60-in. \$150. With water attachment, \$10 extra.
Style C—Extra heavy. Wet and dry grinding. 54-in. \$185, 60-in. \$185, 75-in. \$205, 90-in. \$225.

HELP WANTED.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

WANTED—Good all-round commercial artist; also young man with talent and some experience to work his way up. **BURBANK ENGRAVING CO.**, Boston, Mass.

Composing-room.

JOB COMPOSITOR AND STONEMAN WANTED—Pleasantly situated suburban office handling good grade catalogue and miscellaneous work; steady situations; married men preferred; no labor troubles; give references and particulars. C 183.

Engravers.

WANTED—A first-class half-tone operator; must be fast and thoroughly reliable; a steady position for such a man. C 338.

WANTED—Half-tone photographer; good chance for advancement; address stating particulars, C 334.

WANTED—Young zinc etcher with at least one year's experience; splendid opportunity for hustler; write now. **SEEMAN & PETERS**, Saginaw, Mich.

Foreman.

SUPERINTENDENT of printing department of manufacturing plant in Michigan; a well-equipped open-shop office having 6 compositors, 5 cylinders and 11 jobbers; must be capable of taking entire charge and of getting out proper amount of first-class work at minimum cost; give age, experience, references and salary expected. C 327.

Operators and Machinists.

WANTED—Linotype operator for union book office; best of wages. C 38.

Miscellaneous.

WANTED—Experienced men in Texas, Arkansas, Colorado, Louisiana, New Mexico, Arizona, Indian Territory and Oklahoma to represent a modern printing, bookbinding and lithographing plant. C 264.

SITUATIONS WANTED.

DO YOU WANT HELP FOR ANY DEPARTMENT? The Inland Printer Employment Exchange has lists of available employees for all departments, which are furnished free of charge. The following are now listed with us, seeking employment: Pressmen, 10; bookbinders, 5; stereotyper, 1; monotype operators, 2; proofreaders, 4; ink maker, 1; Job-printers, 14; stonemen, 2; photoengravers, 3; editors and reporters, 7; Linotype operators, 13; machinist-operators, 11; Linotype machinists, 6; ad-men, 3; superintendents and foremen, 17; all-round men, 3; make-ups, 5; advertising and business managers, 4. Address **THE INLAND PRINTER COMPANY**, Chicago.

Composing-room.

COMPETENT JOB COMPOSING-ROOM FOREMAN desires situation; first-class output guaranteed; married, strictly temperate and reliable; at present employed; can furnish A-1 references. C 348.

SITUATION WANTED—By high-class job-printer, capable of taking entire charge, estimating, etc.; married, best references; would consider a working partnership; no junk heaps; give full particulars, with salary. **EDWARD COURTWRIGHT**, Monticello, Iowa.

Engravers.

ENGRAVER wants good position engraving steel embossing dies (no copper-plate work); will make up sample giving time on same; position must be steady. C 337.

FIRST-CLASS ENGRAVER wants charge or would start plant for live newspaper. **BOX 481**, Effingham, Ill.

SITUATION WANTED—By a first-class line photographer who has had some experience in half-tone work. C 19.

WANTING POSITION—Engraver on both steel die and copperplate. C 336.

Foreman.

A-1 COMMERCIAL PRINTER, 17 years' experience as all-round man and foreman with leading firms, competent to handle highest class of work and men to advantage, wants position as foreman or assistant superintendent; first-class references. C 353.

Manager.

MANAGER—Man wants position as manager of printing-office; acquainted with mechanical details of the business, and good salesman; location—preferably Philadelphia, New York or Washington. C 142.

Operators and Machinists.

LINOTYPE MACHINIST desires position; 7 years' experience book and news; references, union. **G. M. FARR**, 150 Spring st., Portland, Me.

LINOTYPE MACHINIST-OPERATOR wants position, day work, in Northwest; union; speed 5,000; can rebuild and overhaul machines; sober. C 350.

LINOTYPE OPERATOR-MACHINIST—Two Years' experience double decker and news; strictly sober; 5,000 and over per hour; union. C 335.

LINOTYPE OPERATOR, 6 years' experience, union, sober and steady, 5,000 per hour or better, employed, desires day newspaper work. C 312.

Pressroom.

COMPETENT FOREMAN; 9 years' experience in folding-box work, on one and two-color presses; understands mixing colors, etc.; good habits. C 21.

COMPETENT PRESSMAN wants position as pressman with good firm; have had 12 years' experience as follows: 4 years' experience as platen pressman, 4 years' experience as cylinder pressman, and 4 years' experience as Harris Automatic pressman. C 333.

CYLINDER AND ROTARY PRESSMAN wants situation in Wisconsin country town; correspondence solicited. C 344.

CYLINDER PRESSMAN—Desiring to make change; 10 years' experience with best classes of work; good on Dexter feeder; married; union, sober, steady and reliable, and can furnish good references if necessary. C 33.

POSITION WANTED by young, up-to-date half-tone and catalogue pressman, capable of taking charge; West preferred. C 215.

Purchase.

WANTED AT ONCE—SECONDHAND—One Colts armory 14 by 22, one Chandler & Price 10 by 15, one 30-inch cutter, one foot-power punch, and one lead and rule cutter. C 340.

WANTED INLAND PRINTER for November, 1883; state price and condition. C 57.

WANTED—Secondhand Linotype; also one or two secondhand magazines. C 261.

WILL BUY single-letter Linotype machines from publishers or printers who contemplate renewing plants with two-letter and more modern machines. **M. A. J.**, 25 E. 14th st., New York city.

MISCELLANEOUS.

A COLD SIMPLEX STEREOTYPING OUTFIT, \$17 and up, produces the finest book and job plates, and your type is not in danger of being ruined by heat; simpler, better, quicker, safer, easier on the type, and costs no more than papier-maché; also two engraving methods costing only \$5 with materials, by which engraved plates are cast in stereo metal from drawings made on cardboard; "Ready-to-use" cold matrix sheets \$1. **HENRY KAHR**, 240 E. 33d st., New York, N. Y.

ANYBODY CAN MAKE CUTS with my simple transferring and etching process; nice cuts from prints, drawings, photos are easily and quickly made by the unskilled on common sheet zinc; price of process, \$1; all material costs, at any drug store, about 75 cents. Circulars and specimens for stamp. **THOS. M. DAY**, Box 1, Windfall, Ind.

PRINTERS everywhere find the producing of imitation typewritten letters a most profitable side line. Ours is the leading circular letter firm in Chicago, printing millions of letters weekly on our platen and Harris presses. We make our own inks and typewriter ribbons, and guarantee perfect work in every way. Full instructions for operating the process furnished all users of our supplies. No apparatus of any kind required, and no royalties. Prices: Ink for circular letter printing, per lb., any color, black, blue, green, purple, brown or red, per lb. \$2.50
Typewriter ribbons exactly matching, per dozen 4.00
Special prices to large users.
M. M. ROTHCHILD, Circular Letter Specialist, 96 5th ave., Chicago.

PRINTERS!—Simple, cheap process for tint-block making and letter shading 50 cents; any printer can get pleasing results. **CHAS. BARDIN**, Tampa, Fla.

STEWART'S EMBOSSEMENT BOARD—Easy to use; hardens like iron; 6 by 9 inches; 3 for 30 cents, 7 for 50 cents, 12 for 80 cents, postpaid. **THE INLAND PRINTER COMPANY**, Chicago.



PRINTERS Write on your business letter-head to **R. Carleton Engraving Co., Omaha, Neb.**, for the latest copy-right **LODGE CUT CATALOGUE**.
Book, "When Papa Rode the Goat." Colored plates, 100 illustrations. Many fearful things. 15c. by mail, to printers only.

**PRINTS
BRIGHT
GOLD**

(SEE INSERT, APRIL, 1905)

RIESSNER'S IMPERIAL GOLD INK
Not made for anything but Plated and Coated Stock.

Careful printers using this Gold Ink on Plated and Coated Stock can do work equal to Dry Bronzing. Printed specimens furnished on application.

Rich Gold, . . . \$3.00 per lb.
Pale Gold, . . . 3.00
Copper, . . . 3.00
Aluminum, . . . 4.00

Put up in
½ and 1 pound
tin cans.



T. RIESSNER
57 Gold Street, NEW YORK



Quick one-screw regulation of ink flow.

A Fountain on Your Gordon Jobber

is just as necessary as a fountain on your cylinder, and who would think of running a cylinder without a fountain? If your jobber is producing only 7,000 to 9,000 impressions a day, with a NEW CENTURY it will produce from 12,000 to 15,000. Worth thinking about; and to think should be to act. The NEW CENTURY is built and patented by a printer who understands the pressman's requirement. It will do the work of a long fountain without any of its disadvantages.

FOR ALL SIZES CHANDLER & PRICE, CHALLENGE, AND ALL GORDON PRESSES.

Get a descriptive circular from your dealer or from us. Always specify your presses. **The WAGNER MFG. CO., Scranton, Pa.**

We are using the New Century fountain manufactured by your company, on our Chandler & Price and Improved Gordon presses. We note particularly that the color on all jobs is easily kept uniform, and the product of both presses is very materially increased. We are well pleased with the New Century, and do not know another fountain that can be compared with it. "It is all to the good."

THE PEOPLES' PRINTING COMPANY
L. A. CLARK, Manager

OUR COLOR DESIGNS FOR PRINTERS' BLOTTERS

are building business for those who use them. Only one shop in a town can get them. Write for samples and particulars. **CHAS. L. STILES, Printers' Cuts, Live Stock Cuts, Poultry Cuts, COLUMBUS, OHIO**

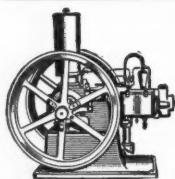


SPATULA CUT CATALOGUE (7th ed.). Thousands of beautiful and appropriate half-tone and line cuts for ads, booklets, etc. Over 100 pp. 9 1/2 x 12 1/2, 50c. (refunded on \$2 order). **BEAUTY BOOK**—Full-page art pictures from photos of 60 of the most beautiful women in the world, 26c. Electros for sale. Both 70c. Stamps taken **SPATULA PUB. CO., 100 Sudbury Building BOSTON, MASS.**

Peerless Padding Glue

The Best and Cheapest. Always Flexible. Pure White. Tough. Quick Drying. Never Sticky. Don't Mould. Samples and prices on application.

Cleland Chemical Co., 910A Greene Av., Brooklyn, N. Y.



THE MIETZ & WEISS OIL ENGINES

Marine, 1 to 100 H.P. Stationary, 1 to 70 H.P.

Operated by common kerosene oil. Automatic in operation, absolutely reliable and uniform in speed. Especially adapted to operating printing presses and Linotype machines. Does not affect rate of insurance.

Send for Catalogue.

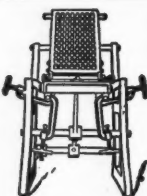
A. MIETZ, 128 Mott St., New York



HEADQUARTERS FOR EMBLEM CUTS

YATES BUREAU OF DESIGN
263-269 Dearborn St. CHICAGO, ILL.

Send Stamp for Booklet: "Write on your Business Stationery"



New, STEREOTYPING

SCHREINER'S CROSS-CORE CASTING BOX

The most perfect machine. Cast irregular size plates, type high, with crossing cores; the best base, saves time, saves metal, produces the best plates, saving time on the press. Plates move easily from the cover, by improved gauges and lifter. No warping or shrinking of plates. Saves all expense for metal or wood bases. Also, we have **Stereotype Paper**, ready to use, for the finest class of jobs, etc.

FRIEDRICH SCHREINER, Mfr., Plainfield, New Jersey.

To make Channels, Space-bands and Matrices smooth and "slick," use **Dixon's Special Graphite No. 635**

Booklet and Sample Free on Request.

Joseph Dixon Crucible Co., Jersey City, N. J.



Quick Stringing Saves Time Labor Money

LOOK! WIRE LOOPS

To Hang Up Catalogs or Pamphlets

The Universal Wire Loop

Is the cheapest and best device for "Stringing" Catalogs, Directories, Telephone Books, Prices Current, etc.

Look Better and Won't Break or Wear Out.

Let us send sample and quote you prices.

Successors to Universal Wire Loop Co.
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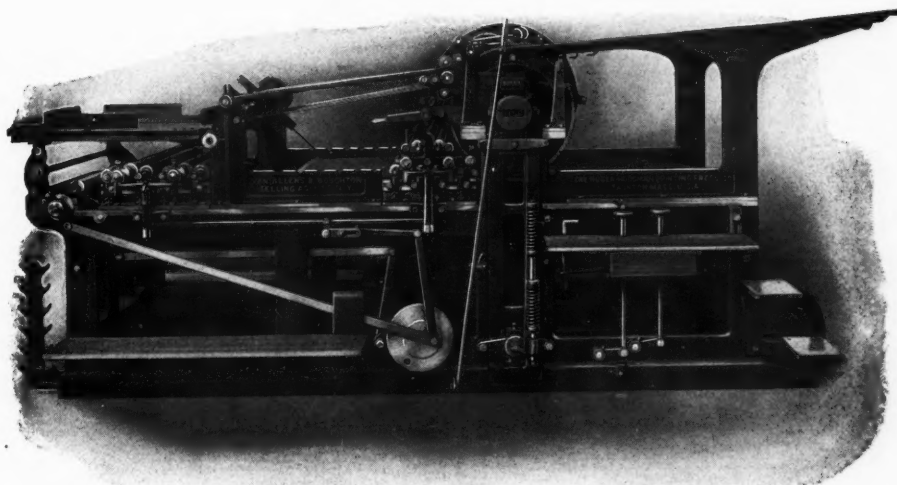
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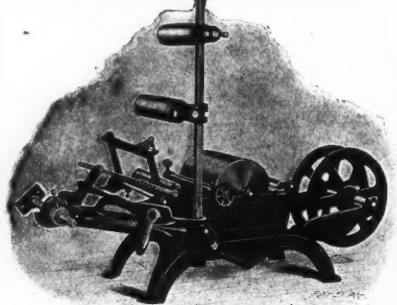
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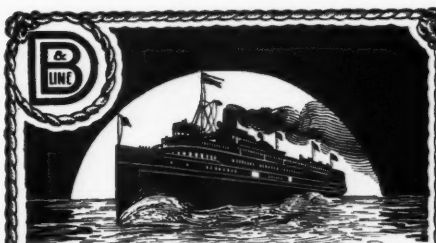
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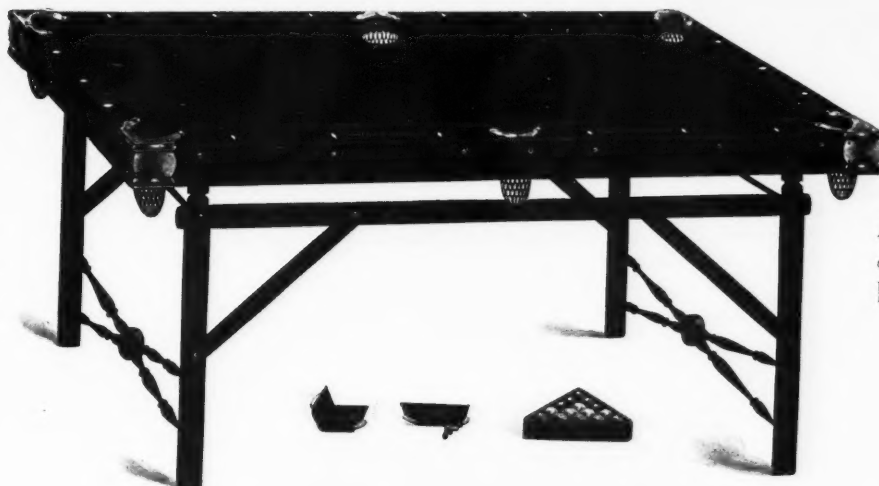
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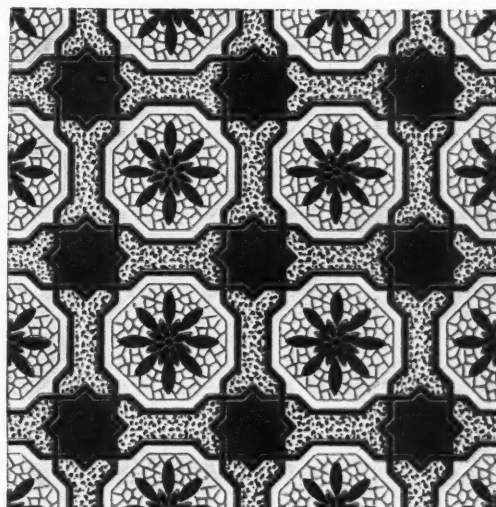
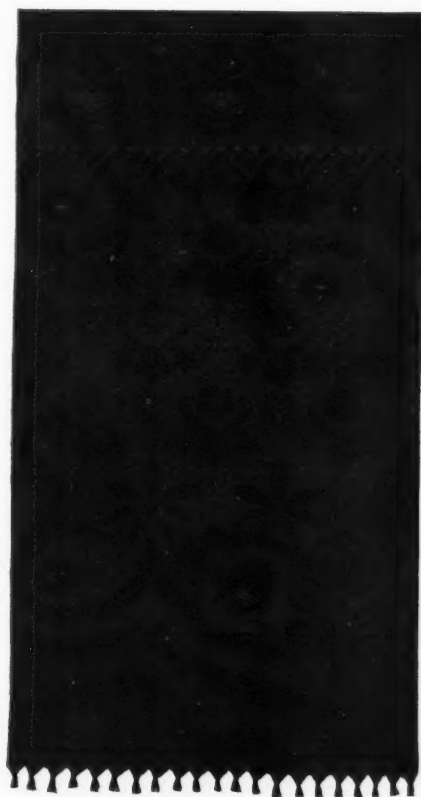
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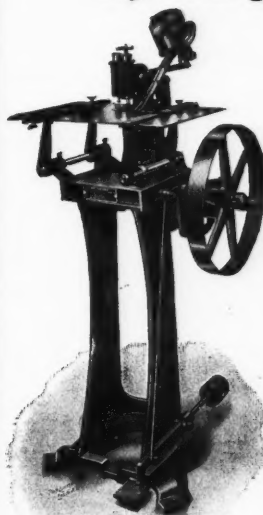
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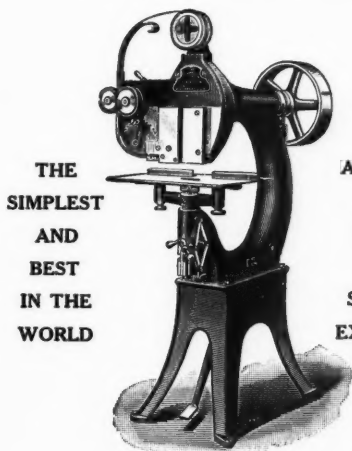


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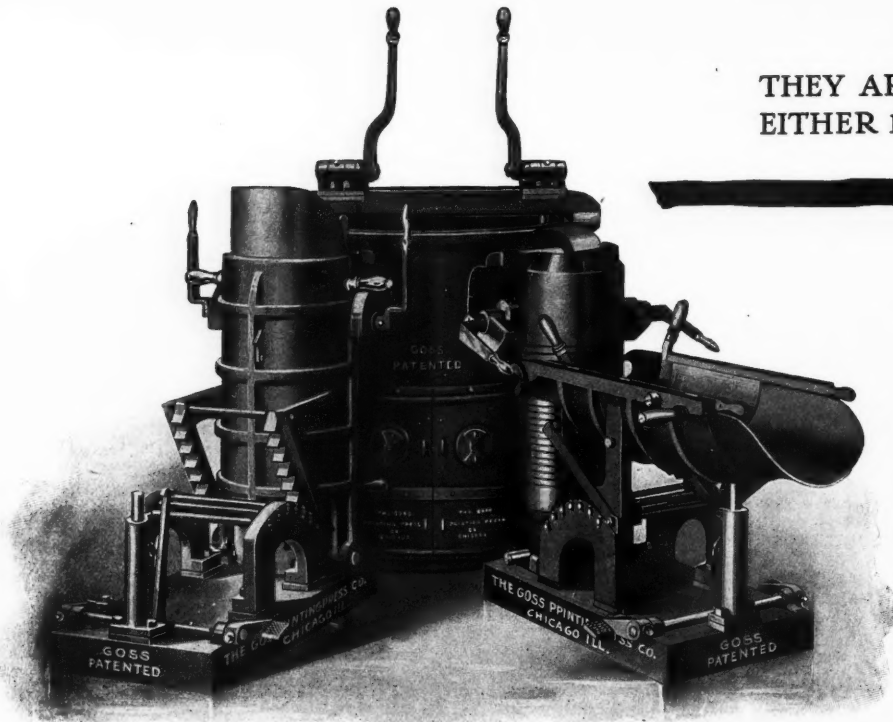
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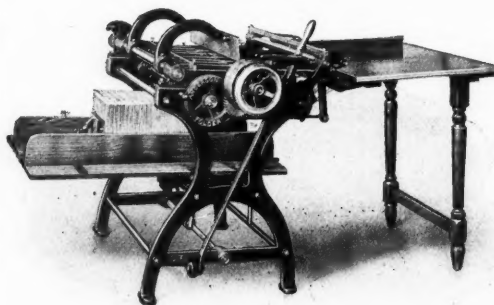
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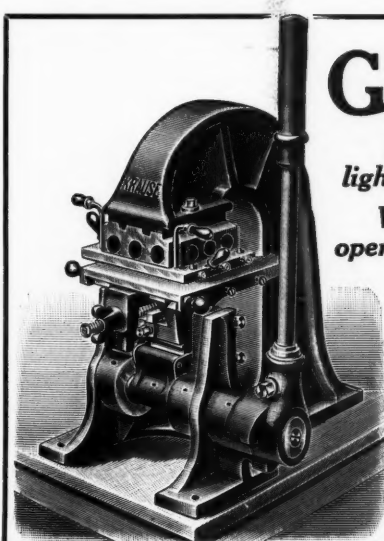
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With
open frame*

Code Word	No.	Blocking Surface	Bed	Space between center of Blocking Plate and Frame
Bepeinzing	B P I	8⅞ x 7⅞ in.	10¼ x 10¼ in.	8¼ in.

¶ As this press is *open on three sides* and as there is much space between center of blocking-plate and frame, the material may be much larger than the blocking surface. The machine is suitable for gilding book backs, velvet or satin ribbons and bows, neckties, hat linings, etc.

KARL KRAUSE, LEIPZIG,
GERMANY

New Perfected Prouty Press

A prospective customer is given the following advice:

"A printer in—, although he is using another press, told me that yours could not be equaled."

Hear this from a user:

"I have had one of your presses which I bought away back in '88, I guess. One good thing about your press is the long bearings on the working parts. I have had this press eighteen years or so, and I can not see that any of the bearings have worn yet."

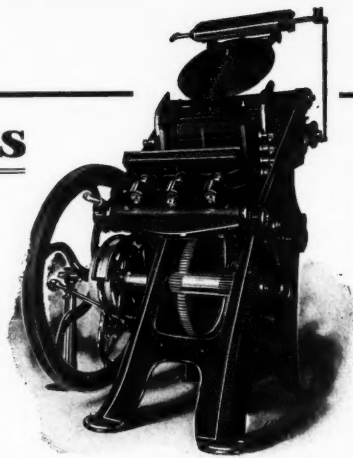
No Cams, Two Driving Gears, and Frame of One Casting.

MANUFACTURED ONLY BY

Boston Printing Press & Machinery Co.

185 Summer Street,

BOSTON, MASS.



A New Type-High Numbering Machine

**Prints
Figures
Only**

Ask your dealer
about it.

For use with or without type on printing-presses. This is the only typographic numberer that prints nothing but the figures, without "No." a period, or any other affix or suffix intended to act as plungers or to prevent the printed sheet from being smeared by the revolv-
The pressure or cylinder on operates the which chang-
bers and also which raise
printed sheet while they
Bearers do or indent the

TRADE MARK
BETTER WETTER
PLUNGERLESS

INSIST ON HAVING THE "WETTER"

Two Popular Models



Model 325 **12345**

Model 330 **12345**

Wetter Numbering Machine Co. 331-341 Classon Ave. Brooklyn, New York, U. S. A.

CABLE ADDRESS—"WETTER BROOKLYN." Codes used, A B C and Western Union

Champlin Type & Machinery Co.

..Successors to..

Champlin & Smith

Phone...
1212 Harrison

Same Lines -- 121 Plymouth Court. Chicago -- Same Location

Keystone Type
Golding Machinery
Brown Folding Machines
Brown & Carver Paper Cutters
Patent Combination Chases
American Press Seats

All Printers' Necessities

Our customers say we give better service than they get elsewhere

Champlin Type & Machinery Co.

Bates Typographic Numbering and Perforating Machines are Unrivalled in Quality Durability and Simplicity

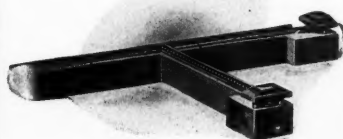
TWELVE DISTINCT MODELS FOR PRINTERS EXCLUSIVELY

Send for Catalogues and Full Information

Number While You Print — Perforate While You Print

They all work together, or separately

Bates Perforating Machines



MODELS 45 AND 46 COMBINED

Our Model No. 50 Six-Wheel Hand Numbering Machine is absolutely the BEST on the Market.

See our Model No. 47 Automatic Dating Machine



Nº 12345

Facsimile Impression

Model No. 27

For General Use

5 Wheels

Made to Number Backward or Forward

THE BATES MACHINE CO. { 346 BROADWAY, NEW YORK CITY
315 DEARBORN ST., CHICAGO, ILL.
LONDON AND MANCHESTER, ENG.

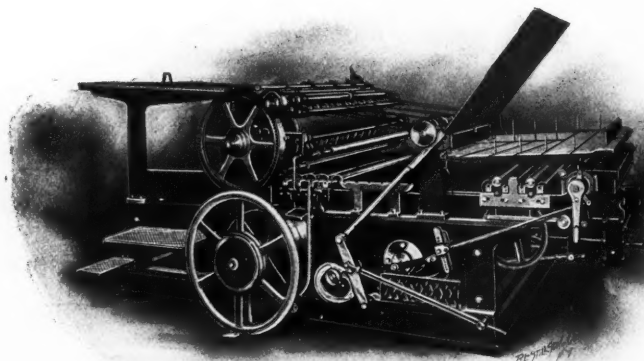
The NEW CASLON is the most generally useful face produced this year. Looks well on all kinds of work. Wears well, too. Sizes up to 18-Point are sold at body type prices. Made in all useful sizes from 5-Point to 84-Point. You cannot afford to do without it. *The New Caslon Italic*, references, fractions, etc., have been made to complete the series. Buy it now.

INLAND TYPE FOUNDRY

SAINT LOUIS • CHICAGO • NEW YORK

Pressroom Profit

THE average printer looks to his pressroom for his greatest profit, and it behooves him to see that his pressroom equipment is such as will bring the greatest returns on his investment in machinery and labor.



The Whitlock Press

Will fulfil this requirement in the most satisfactory manner. For ease in handling, small power required, and quality and quantity of output, it stands in the front rank. Investigate it.

Agencies covering America and Europe:

Western Agents
AMERICAN TYPE FOUNDERS CO.,
Chicago, St. Louis, Cleveland, Cincinnati,
Minneapolis, Kansas City, Denver, Los
Angeles, San Francisco.

Southern Agents:
Messrs. J. H. SCHROETER & BRO.,
44 West Mitchell St., Atlanta, Ga.

European Agents:
Messrs. T. W. & C. B. SHERIDAN,
10 Johnson's Court, Fleet St., London, E. C.

FOR CIRCULARS, PRICES, ETC., WRITE

**THE WHITLOCK PRINTING
PRESS MFG. CO., of Derby, Conn.**

AT THE SALES OFFICES BELOW:

Fuller (Flatiron) Bldg., 23d St. and Broadway, NEW YORK
510 Weld Bldg., 176 Federal St., BOSTON, MASS.

Photo-Engravers Take Notice

Celloidin-Emulsion "Chartreux"

The "CHARTREUX" Celloidin Emulsion is *color-sensitive to all rays of the spectrum*, and is in practical use in many of the leading photo-engraving establishments in Europe for several years. Now being introduced in the United States.

Its superiority above Dry Plates is in its great color-sensitiveness, durability, clearness and economy.

The "CHARTREUX" has splendid keeping qualities—it can be used to its last drop and keeps clear indefinitely.

"CHARTREUX" is especially prepared for the direct and indirect three and four color process, and is guaranteed to be as represented.

For the reproduction from nature, drawings or oil-paintings, in all their delicate shades of color, there is no better medium.

Send name and address for further information.

Sole Agent—GEORGE MURPHY, Inc., . . . 57 East Ninth Street, NEW YORK CITY

COMBINATION OFFER NUMBER ONE

BOOK OF DESIGNS. Containing two hundred and fifty advertisements submitted in competition by competitors. A valuable comparative study in ad. composition. Regular price - - - - - **\$0.40**

PRINTERS' SPECIMENS. A portfolio of some three dozen specimens of high art commercial work, in one and two colors, on harmonious tinted and white paper, and samples of half-tone and three-color work. "The Half-tone Screen and Its Relation to Paper," included in this portfolio, is a valuable exposition of the subject treated. Regular price - - - - - **\$1.00**

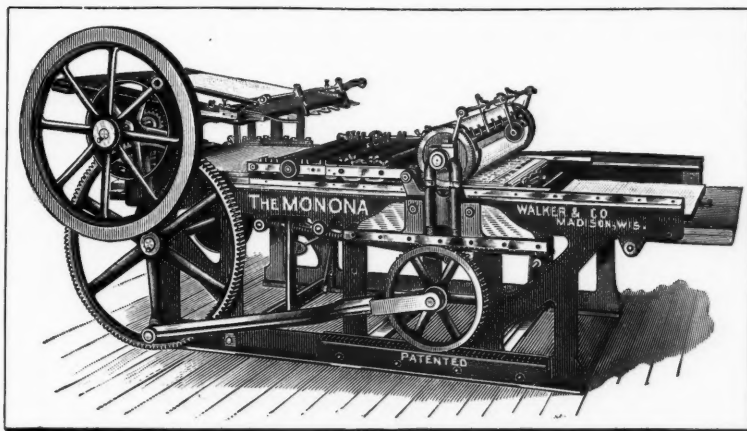
ART BITS. A selection of artistic bits of half-tone and three-color work, neatly mounted on uniform size stock, being a collection of engravers' proofs and etchings. A most interesting portfolio of beautiful art subjects. Regular price **\$1.00**
\$2.40

SENT PREPAID TO ANY ADDRESS ON RECEIPT OF PRICE

The Inland Printer Co. 120-150 SHERMAN ST. CHICAGO, ILL., U. S. A.

SPECIAL PRICE \$1.00 FOR THE THREE

If you want the best news, book and job presses in the world at a reasonable price, here they are



The Monona Leverless or the New Wonder

The MONONA LEVERLESS for News and Poster Work.

The NEW WONDER with rack, screw and table distribution, for Book, Job and News.

A MODERN MARVEL

Nearly 2,000 of our presses sold—a marvelous press record.

Every Press Guaranteed through a Bank—No Risk

The Verdict of the Biggest Type Foundry in the U.S.

Messrs. WALKER & Co., Madison, Wis.:

Gentlemen,—We have handled your presses for the last fifteen years, and they have invariably given satisfaction. We have never been called upon to exchange one of your presses, and the repair bills on them have been the lightest of any cylinder press that we have ever handled. We always send cash in advance so as to secure the cash discount. Our deals with you have been perfectly satisfactory.

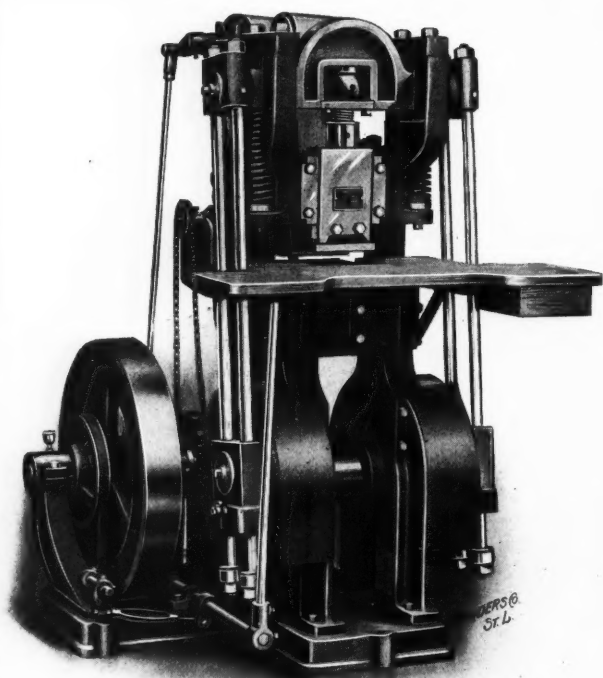
Mention
THE INLAND
PRINTER

BIG BARGAINS

in Washington Hand Presses, Ideal Hand Cylinders, and other Cylinder Presses, Rubber Blankets, Chases, etc.

For Circulars and
Prices address:

W. G. WALKER & CO., Madison, Wis., U. S. A.



*Complete your
Equipment*

with a

CURTIS

**POWER
EMBOSSING
PRESS**

"The Press without a Peer"

Send for our Catalogue and Testimonials from users who have been convinced that our press possesses all points claimed for others, and many exclusively its own.

Modern Machine Company
214 SPRUCE STREET
St. Louis, Mo.

WE WANT YOUR BUSINESS

because we can take care of it.

WE CARRY IN STOCK EVERYTHING
KNOWN IN PRINTERDOM

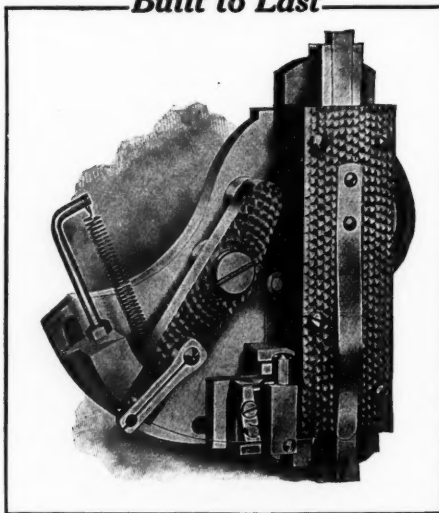
The Printers' Store

JOB PRESSES, PAPER CUTTERS
TUBBS' WOOD GOODS AND WOOD TYPE
SUPPLIES

CORRESPONDENCE INVITED

Chas. Beck Paper Co., Ltd.
609 CHESTNUT STREET :: PHILADELPHIA, PA.

The National Wire Stitcher *Built to Last*

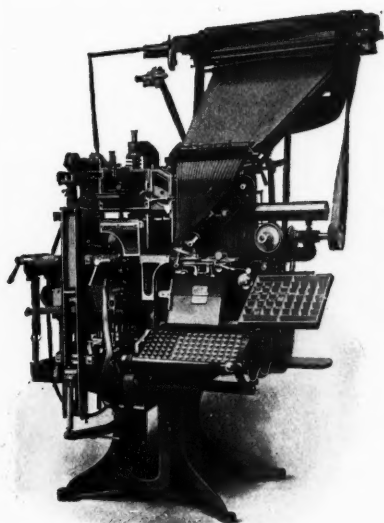


The above cut shows the working parts of the National.
Built in nine different sizes. From 2 sheets to 1 inch.

MANUFACTURED BY

C. G. GLOVER & CO.
48 Centre Street NEW YORK CITY

ON THE BEST CLASS OF
BOOK AND CATALOGUE WORK



The
Linotype

NEVER FAILED US

THE EDDY PRESS

WINCHESTER, VA., January 8, 1906.

Mergenthaler Linotype Co., New York:

GENTLEMEN: We have had in our plant for almost three years one of your Linotypes, from which we have had most satisfactory results.

We have found it one of the best paying investments of our business. We use it on our best class of book and catalogue work and have never failed to make good with its production. We were so well pleased with the results therefrom that we recently installed the second machine and did so from the record we have kept of the first and former machine. We can most highly recommend it.

Very truly yours,

THE EDDY PRESS CORPORATION.

MERGENTHALER LINOTYPE COMPANY

NEW YORK

CHICAGO

SAN FRANCISCO

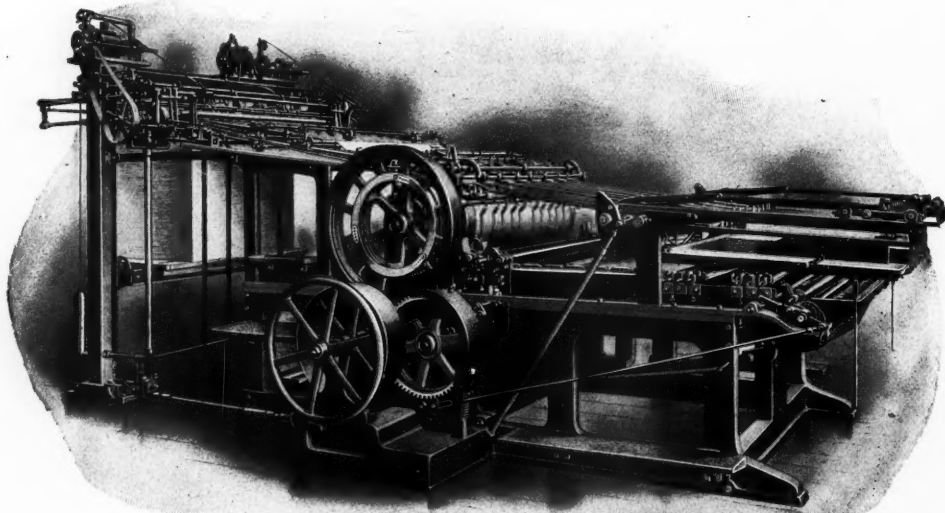
NEW ORLEANS

TORONTO

SYDNEY—Parsons Brothers

TOKIO—Teijiro Kurosawa

Fuller Folders *and* Feeders

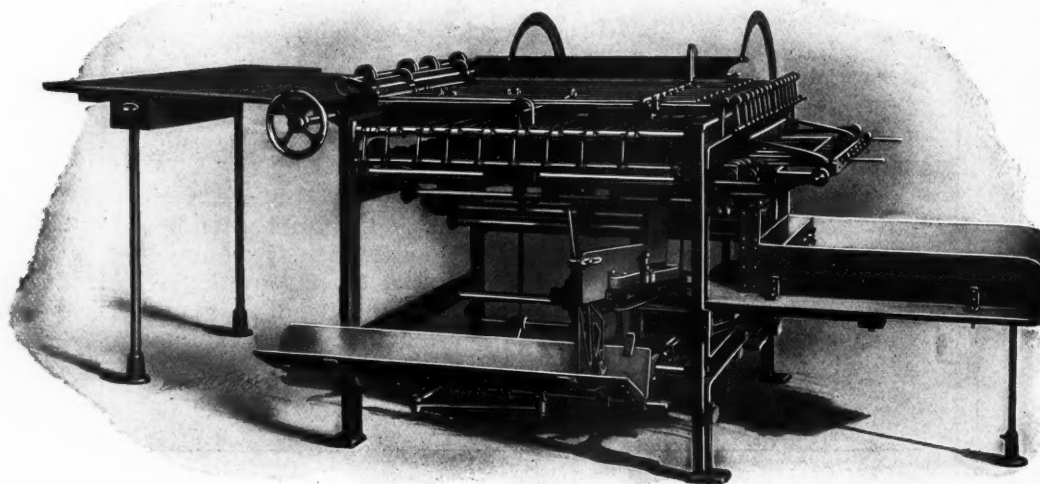


FULLER AUTOMATIC FEEDER FOR PRINTING PRESS

We guarantee an increase in production of ten to twenty-five per cent over hand feeding, absolutely perfect register and a saving in wastage of paper.

We make Automatic Feeders for all kinds of machines designed to handle paper in sheets.

THOUSANDS IN SUCCESSFUL OPERATION.



FULLER COMBINATION JOBBING FOLDER

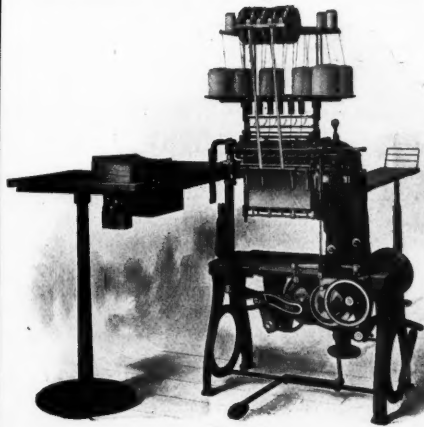
Handles sheets from 12 inches by 16 inches to 38 inches by 50 inches in any weight of paper without wrinkling or buckling. Folds and delivers 8, 12, 16, 24 and 32 pages. Book or Periodical Imposition. Also long 16's, 24's and 32's two or more "on."

Fisher Building
CHICAGO

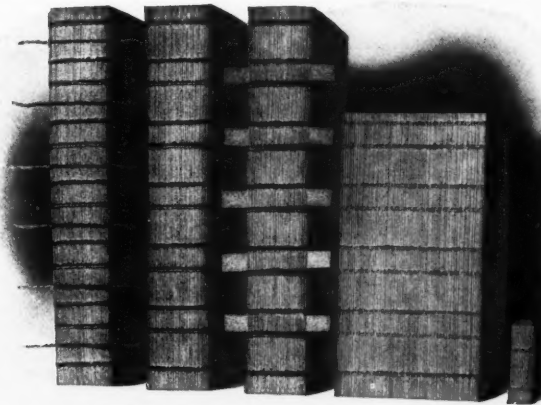
E. C. FULLER COMPANY
28 READE STREET
NEW YORK

FACTORY
BROOKLYN, N. Y.

The Smyth Book-Sewing Machines



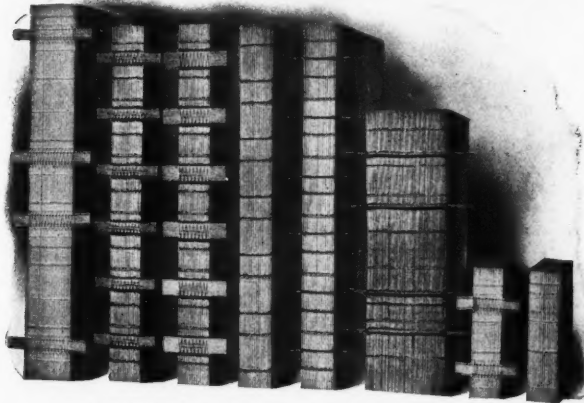
No. 3



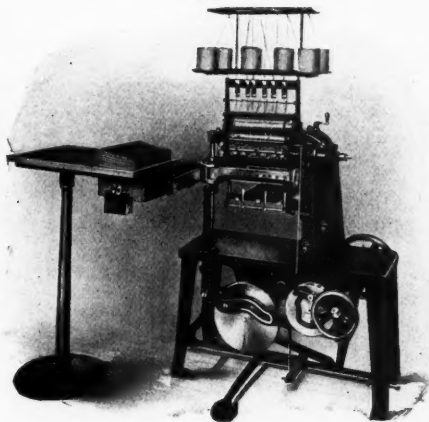
Various styles of sewing done on No. 3



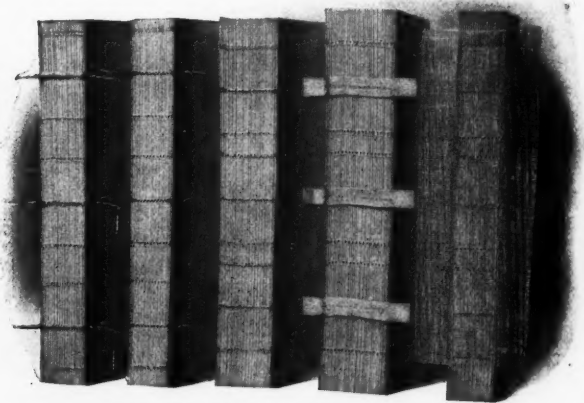
No. 4



Various styles of sewing done on No. 4



No. 7



Various styles of sewing done on No. 7

Used in every country in the world where books are made. Write for descriptive Catalogue.

SOLE SELLING AGENTS

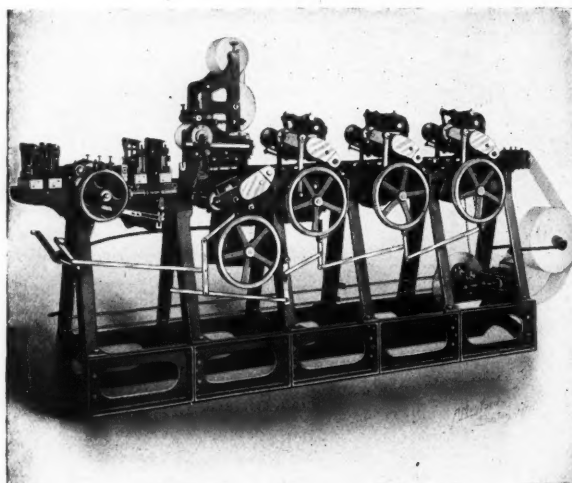
Fisher Building
CHICAGO

E. C. FULLER COMPANY
28 READE STREET
NEW YORK

FACTORY
BROOKLYN, N. Y.

THE NEW ERA PRESS

The fastest Flat-bed Multi-color Press on the market



Speed, 5,000 to 10,000 Impressions per Hour.

This press takes the stock, from onion skin to ten-ply blank, at one end, and delivers finished product printed on both sides in one or several colors, perforated, punched or numbered, and cut both ways, ready for drying rack.

The press is especially designed for manufacturing printers, and invaluable for all classes of small work, including labels, blanks, post-cards, sales-books, tickets, commutation books and transfers.

Four years' practical operation.

Now used in Chicago, New York, New Haven, Boston, Toronto, Montreal, and several other cities.

Duplicate and triplicate orders received.

Correspondence solicited. Catalogues on application.

Address: NEW ERA PRESS, Peabody, Mass.

BRONZING MACHINES

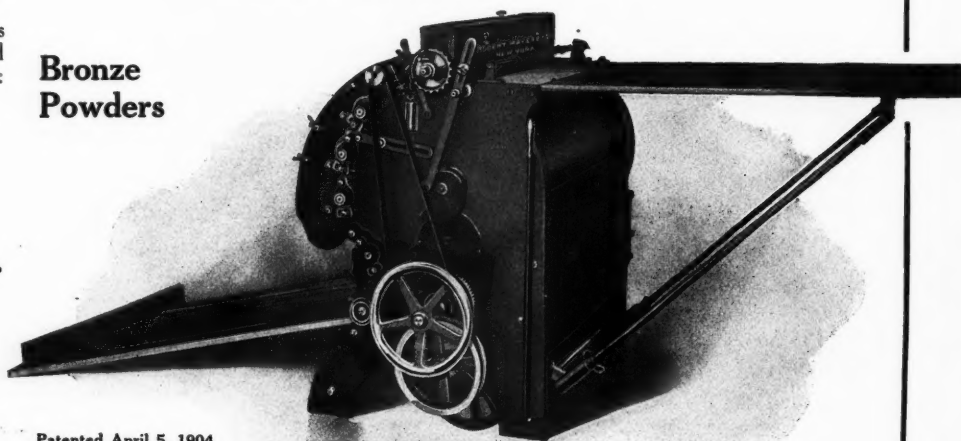
FOR LITHOGRAPHERS AND PRINTERS

GUARANTEED IN EVERY RESPECT

Other specialties manufactured and imported by us:

Reducing Machines,
Stone-grinding
Machines,
Ruling Machines,
Parks' Renowned
Litho. Hand Presses,
Steel Rules and
Straight-edges,
Lithographic Inks,
Lithographic Stones
and Supplies.

**Bronze
Powders**



Sole agents for the United States and Canada for the genuine Columbia Transfer Paper — none genuine without the water-mark on every sheet.

Patented April 5, 1904
Patented May 30, 1905
Patented April 7, 1906
Other patents pending.

We do Repairing


MANUFACTURED BY

ROBERT MAYER & CO. 19 EAST 21ST STREET, NEW YORK
Chicago—Factory, Hoboken, N.J.—San Francisco

TRADE MARK "Micro-Ground." COES TRADE MARK "Micro-Ground." COES TRADE MARK "Micro-Ground." COES TRADE MARK "Micro-Ground." COES

ESTABLISHED 1830

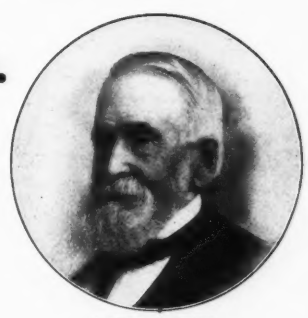
Coes' Price-list is different, too.



LORING COES & CO

COPYRIGHTED, 1904.

	40	41	42	43	44	45	46	47	48	49	50
1	20	12.71	13.02	13.33	13.64	13.95	15.64	15.98	16.32		
2	22	13.98	14.32	14.66	15.00	15.34	17.20	17.57	17.95		
3	24	14.61	14.98	15.32	15.67	16.02	17.98	18.36	18.77		
4	25	15.62	15.99	16.36	16.73	17.10	19.16	19.58			
5	26	15.12	15.48	15.84	16.20	16.56	18.74	19.16	19.58		
6	27	16.63	17.02	17.42	17.82	18.22	19.73	20.16	20.59	21.01	
7	28	17.79	18.21	18.64	19.06	19.48	20.62	21.07	21.52	21.97	
8	29	18.56	19.00	19.44	19.88	20.32	21.52	21.99	22.46	22.93	
9	30	18.06	18.48	18.90	19.32	19.74	20.70	21.15	21.60	22.07	
10	31	19.24	19.68	20.12	20.56	21.00	22.77	23.26	23.76	24.26	
11	32	20.16	20.62	21.08	21.54	22.00	24.16	24.66	25.16	25.66	
12	33	21.24	21.74	22.24	22.74	23.24	24.84	25.37	25.92	26.47	
13	34	22.16	22.68	23.20	23.72	24.24	25.84	26.42	27.00	27.58	
14	35	23.08	23.63	24.18	24.73	25.28	26.88	27.52	28.17	28.82	
15	36	24.00	24.58	25.16	25.74	26.32	28.00	28.72	29.44	30.16	
16	37	25.00	25.60	26.20	26.80	27.40	29.20	29.92	30.72	31.52	
17	38	26.00	26.62	27.24	27.86	28.48	30.40	31.24	32.08	32.92	
18	39	27.00	27.64	28.28	28.92	29.56	31.60	32.56	33.52	34.48	
19	40	28.00	28.66	29.32	29.98	30.64	32.80	33.84	34.88	35.92	
20	41	29.00	29.68	30.36	31.04	31.72	34.00	35.12	36.24	37.36	
21	42	30.00	30.70	31.40	32.10	32.80	35.20	36.40	37.60	38.80	
22	43	31.00	31.72	32.44	33.16	33.88	36.40	37.72	39.04	40.36	
23	44	32.00	32.74	33.48	34.22	34.96	37.60	39.04	40.48	41.92	
24	45	33.00	33.76	34.52	35.28	36.04	38.80	40.32	41.84	43.36	
25	46	34.00	34.78	35.56	36.34	37.12	40.00	41.60	43.20	44.80	
26	47	35.00	35.80	36.60	37.40	38.20	41.20	42.92	44.64	46.36	
27	48	36.00	36.82	37.64	38.46	39.28	42.40	44.24	46.08	47.92	
28	49	37.00	37.84	38.68	39.52	40.36	43.60	45.52	47.52	49.52	
29	50	38.00	38.86	39.72	40.58	41.44	45.00	47.04	49.12	51.20	



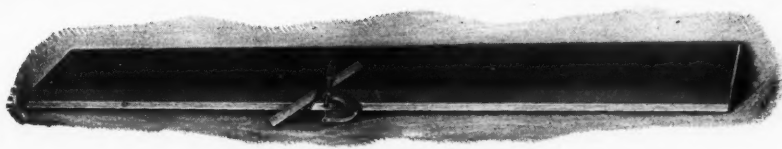
LORING COES

Plain,
Open and
Easily Used.
No trick to use
it, and no "open
and shut" to it.

Because it is
plain, the Trust
says it is not
warranted and an
intrusion.

That MAY be, but it can't be juggled with.

**Coes'
Knives**



Are Honest, Reliable and Sound.

COES' RECORDS

- First to use Micrometer in Knife work (1890).
- First to absolutely refuse to join the Trust (1893).
- First to use special steels for paper work (1894).
- First to use a special package (1901).
- First to print and sell by a "printed in figures" Price-list (1904).
- First to make first-class Knives, any kind (1830 to 1905).

**COES
Is Always Best?**

Our warrant and reputation are
behind every inch of edge.

Why not ask us, now that the other
fellow has tried to make you believe he
knows it all? We'll be honest.

Loring Coes & Co. INC.
Worcester : : : : Massachusetts

NEW YORK OFFICE—G. V. ALLEN, 10 Warren Street

TRADE MARK "Micro-Ground." COES TRADE MARK "Micro-Ground." COES TRADE MARK "Micro-Ground." COES TRADE MARK "Micro-Ground." COES



SIMONDS PAPER KNIVES ARE THE BEST

PERFECT TEMPER.

KEEN DURABLE CUTTING EDGE.

NO HARD OR SOFT SPOTS.

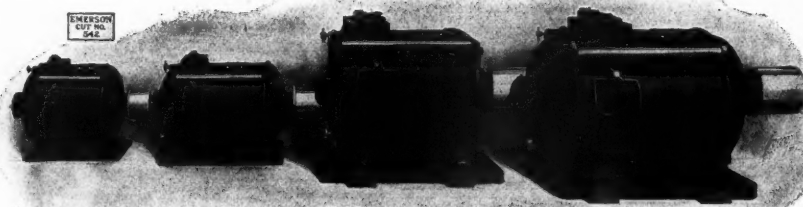
UNIFORM THICKNESS.

SIMONDS MANUFACTURING CO.

FITCHBURG, MASS.

AND

CHICAGO, ILL.



"Emerson" on the name-plate of your motor, stands for *the best* that it is practicable to give of material and workman's care, for *modern motor design* and methods of manufacture, for that *reliability* so essential to any printing plant.

Emerson Motors are made for direct current in all sizes up to 2½ horse-power. They are being successfully used on hundreds of job presses, as well as practically all other light machines of a job office—stitchers, rulers, folders, Harris automatic presses, small cylinders—anything within their power.

This Company also makes a special Alternating Current Motor for the linotype, and other Alternating Motors up to ½ horse-power.

While we do not sell direct to printers, we will see that you are furnished with prices, if you will write us what you need.

The Emerson Electric Mfg. Co.

ST. LOUIS, MISSOURI

THE INLAND PRINTER BUSINESS DIRECTORY.

The firms enumerated below are reliable, and are commended to the notice of those seeking materials, machinery or special service for the Printing, Illustrating and Bookbinding Industries.

Insertions in this Directory are charged \$7 per year for two lines; more than 2 lines, \$2 per additional line.

ADDRESSING.

LANGUAGES PRINTING COMPANY, Languages building, 15 W. 18th st., New York. Envelopes, wrappers, newspapers, catalogs, cards and letters addressed by hand, typewriter and machinery to printers, publishers, booksellers, bookbuyers, libraries, linguists, scientists, throughout the world.

ADVERTISING CALENDARS.

FRENCH NOVELTY ADV. Co., Sunday Call building, Easton, Pa. Manufacturers and wholesale dealers in calendars and other advertising novelties.

ADVERTISING CALENDARS AND PADS.

BONNERWITH, L. & Co., 14-16 Thomas st., New York. Samples for 1907.

ADVERTISING FANS.

CRESCENT EMBOSSING Co., Plainfield, N. J. See "Crescent Goods."

ADVERTISING NOVELTIES OF WOOD.

AMERICAN MANUFACTURING CONCERN, Jamestown, N. Y.

NORTH-WESTERN NOVELTY Co., Geneva, Ill.

AIR BRUSH.

THAYER & CHANDLER, fountain air brush, 160 W.



Jackson blvd., Chicago. Send for catalogue.

BALL PROGRAMS AND INVITATIONS.

BUTLER, J. W., PAPER Co., 212-218 Monroe st., Chicago. Ball Programs, Folders, Announcements, Invitations, Tickets, Society Folders, Masquerade Designs, etc.

CRESCENT EMBOSSING Co., Plainfield, N. J. See "Crescent Goods."

BOOKBINDERS.

LANGUAGES PRINTING COMPANY, Languages building, 15 W. 18th st., New York. Wire-stitching, odd-volume and edition binding.

BOOK STAMP ENGRAVERS AND DIE SINKERS.

STARK & SELIG, 458 W. Broadway, New York.

BOOKBINDERS' MACHINERY.

HICKOK, W. O., MANUFACTURING Co., Harrisburg, Pa. Ruling machines, bookbinders' machinery, numbering machines, ruling pens, etc.

ISAACS, HENRY C., 10-12 Bleecker st., New York.

BOOKBINDERS' LEATHER AND CLOTH.

THOMAS GARNAR & Co., manufacturers, 181 William st. and 22 Spruce st., New York.

BOOKBINDERS' SUPPLIES.

SLADE, HIPP & MELOY, Incp'd., 139 Lake st., Chicago. Also paper-box makers' supplies.

BOOKSELLERS.

LANGUAGES PRINTING COMPANY, Languages building, 15 W. 18th st., New York. Languages book-store is a classified book-store of new, secondhand and rare books, linguistic, scientific and otherwise. Translations, Grammars, Dictionaries, Periodicals. American and foreign books and magazines on printing. Mail-orders and subscriptions taken.

BRASS RULE AND BRASS GALLEYS.

HAMMOND PRINTERS' SUPPLY Co., 45 Eddy st., Providence, R. I. Discount, 40 per cent.

WESEL, F., MANUFACTURING Co., 70 to 80 Cranberry st., borough of Brooklyn, and 10 Spruce st., N. Y. city; 310 Dearborn st., Chicago; 124 South 8th st., Philadelphia.

BRASS-TYPE FOUNDERS.

MISSOURI BRASS TYPE FOUNDRY Co., Howard and Twenty-second sts., St. Louis, Mo. Exclusive Eastern agents, Keystone Type Foundry, Philadelphia, New York.

WESTERN BRASS TYPE FOUNDRY Co., 3749 Texas av., St. Louis, Mo. New modern machinery and plant.

CALENDAR MANUFACTURERS.

CRESCENT EMBOSSING Co., Plainfield, N. J. See "Crescent Goods."

MEYER-ROTIER PRINTING Co., Milwaukee. Printers and jobbers can add a few choice, original designs to their line by writing us.

CALENDAR PADS.

THE SULLIVAN PRINTING WORKS Co., Court and Broadway, Cincinnati, Ohio, make 40 sizes and styles of Calendar Pads for 1907. The best and cheapest in the market. Write for sample book and prices.

CARBON BLACK.

CABOT, GODFREY L., Boston, Mass.

CARDBOARD MANUFACTURERS.

CHAMPION COATED PAPER Co., Hamilton, Ohio.

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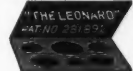
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YOU SAVE INK, TIME, PATIENCE and hold trade, and get the reputation of doing the cleanest and best work in the shortest time. Remit by draft, P. O. or exp. order.

PRICES: 1 Pint, 50c. (Prepaid by express, 65c.) 1 Quart, \$1.00. (Prepaid by express, \$1.25.) 1 Gallon \$3.00. 5 to 40 Gallons, \$2.25 per gal. 50 Gal. Bbls, \$2.00 per gal. Order now. Address Dept. 1 C. E. DONNELL CO., 18 S. 2ND ST. ST. LOUIS.

Now Ready for Distribution

Our Complete

Specimen Book

—of—

Type, Brass Rule, Borders, Leads,
Slugs, Cases, Stands, Cabinets,

AND ALL

Printers' Supplies

WE SAVE YOU MONEY, because you buy direct from the foundry, and as we have no connection with any trust or combination, yet at the same time we can supply as good if not better goods than can be obtained elsewhere.

SEND FOR A COPY—IT'S FREE.

The Spencer & Hall Co.
Type Founders
BALTIMORE, MD.

Voluntary Endorsements

Elkins, W. Va. 4/6/06.
I enclose money order for two dollars to pay my subscription another year to the best printer's journal on earth.
Very truly yours, E. G. Johnson.

Leipzig, Germany. 2/17/06.
We enclose you herewith subscription to your journal as follows:
One dollar in note M 24.28, fifty cents in American Stamps M 22.13,
German stamps M \$1.20
Gustav Ferd Schacht & Co.

Thomaston, Maine 2/5/06.
Don't want you to stop sending it.—Our favorite personal
Yours fraternally, E. S. Stevens, Mgr.
"The Place for Quality Printing."

Anderson, Ind. 3/19/06.
As long as such men as Woodworth, Hanson and Copper are at the head of their Departments I will desire to remain a subscriber to the National Printer-Journalist.
Respectfully, S. F. Harb, Printer

Brinkley, Ark. 1/16/06.
The Printer-Journalist is one of the most sought for publications that comes to this office. It is worth its weight in silver at a 3:1 ratio.

W. B. Folsom Printer & Publisher
Enclosed find \$2.00 for which please send the National Printer-Journalist for one year
J. S. Cushing
[Proprietor of one of the largest printing offices in the U.S.]

Frankfort, Ky. 3/5/06.
Enclosed find \$2.00 for which please give me credit. Your paper gets better with each issue.
Yours, The Coyle Press.

Soda Springs, Idaho 2/20/06.
I enclose two plunks for a year of your valuable journal. You are on the right track and every publisher should have a ticket on the train.
Very truly yours, Joe H. DeWitt

Christchurch, New Zealand 2/7/06
Enclosed find post office order for 10/6, being renewal of our subscription to the National Printer-Journalist, which expires March next. We are, Dear Sir, Yours faithfully, The Christchurch Press Co.

more to come!

Send for Sample Copy.

NATIONAL PRINTER-JOURNALIST
RAVENSWOOD PARK, ILL.

DON'T SPEND YOUR TIME "PLUGGING"

Williams' COMBINATION Rubber Furniture

PATENT No. 272221

DOES AWAY WITH THIS OPERATION



Illustration showing full-size 18-em piece.

¶ So many employing printers complain for the reason that they have found no profit in their composing-rooms. This has been a complaint for years. Isn't it about time to find a remedy? Now that we have shorter working hours adds increased importance to this matter, and it is Tubbs' idea that the composing-room has been sadly neglected in the way of modern equipment since the time of printing.

¶ Great expenditures are being made continually in reference to modern machinery and other equipment, while the poor compositor is compelled to plug along with his old-fashioned and ancient tools. Tubbs is here to offer suggestions in new equipment. We have demonstrated this fact to many of the larger offices in the country. Just now we have a great time-saver in Williams' Combination Rubber Furniture.

¶ How many times does the stoneman lock up a form and find perfect justification throughout the first time? It is not uncommon to unlock a form half a dozen times. This time is all saved with our Patent Furniture. It saves stock and loss of time in pull-outs; there is no working up of quads and spaces. When a form is locked up it stays locked, and will last indefinitely.

¶ Since offering this material to the printer, the demand has been unusually large, but we are adding increased facilities and are able to serve you promptly.

WHAT ONE USER SAYS:

THE DAILY ARKANSAS DEMOCRAT
Little Rock, Ark.

March 29, 1906.

THE TUBBS MFG. CO., Ludington, Mich.:

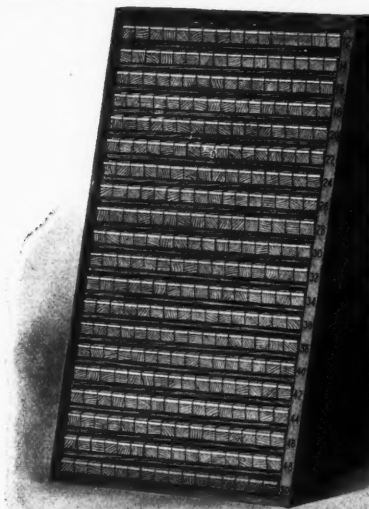
Gentlemen,—We have used the W. W. Williams Rubber-Faced Printers' Furniture during the past year. It has given splendid satisfaction and is one of the greatest economies that can be introduced into the make-up department of the composing-room of a printing-office. It answers with equal facility for both job and book work, as the principle is the same in both cases: that of keeping loose lines or quads and spaces from working up either on job press or on cylinder presses.

We are using the latest improved point system of type and material, and the fault that this rubber furniture overcomes is not in the make-up of the material but in the justification of it, which is as different as the varying touches of different compositors.

The W. W. Williams Rubber-Faced Furniture is a success in every sense, as demonstrated in our experience, and the cost is so slight that no office can afford to be without it.

Respectfully,

ARKANSAS DEMOCRAT CO.



Case No. 902, containing 16 pieces of each length from 12 to 50 ems. List price, \$30

LIST PRICES OF WILLIAMS' COMBINATION RUBBER FURNITURE

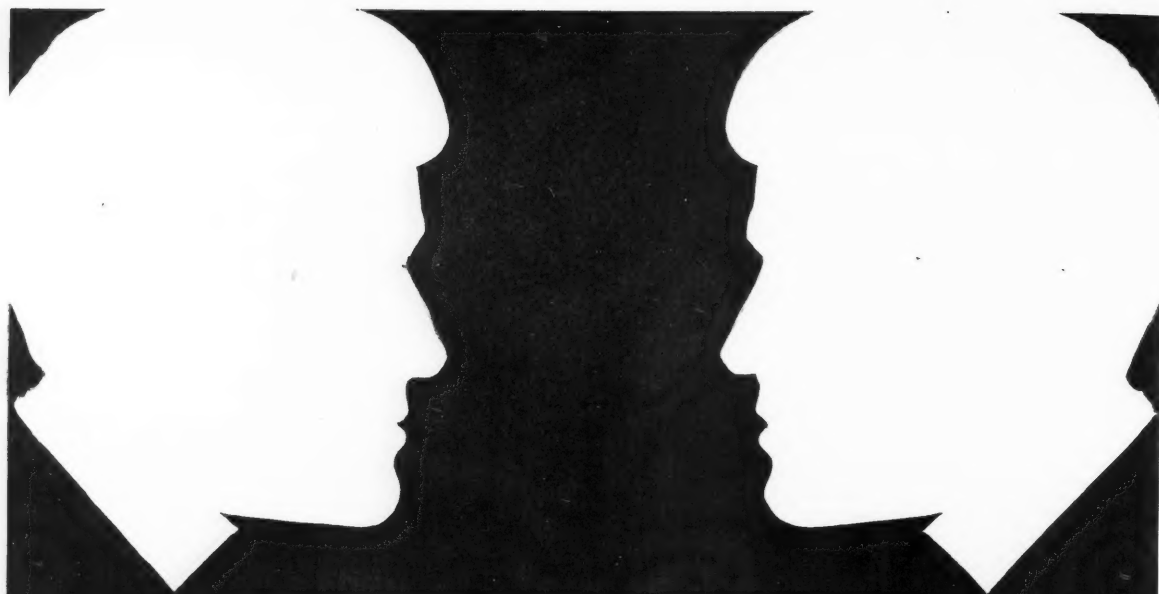
No. 901 Case, containing 8 pieces of each length from 12 to 50 ems,	160 pieces,	. . . \$16.00
No. 902 Case, containing 16 pieces of each length from 12 to 50 ems,	320 pieces,	. . . 30.00
No. 903 Case, containing 32 pieces of each length from 12 to 50 ems,	640 pieces,	. . . 55.00
No. 904 Case, containing 64 pieces of each length from 12 to 50 ems,	1,280 pieces,	. . . 95.00
In yard lengths, per yard,		. . . . . .60

SUBJECT TO
DISCOUNT

THE TUBBS MFG. CO.
LUDINGTON, MICHIGAN :: U.S.A.



MAKERS OF
Uncommon Printers' Furniture
Tubbs' Point-Line Wood Type



If we could give you a few minutes of
Straight Talk

We WOULD convince you that our Art Department is the largest and most capable in the entire West.

We WOULD convince you that our Engraving Department stands "par excellence" in either one, two, or three color work.

We WOULD convince you that our Printing Department is a *real out-and-out* print-shop.

Our Cuts Talk

Let them talk for you.

The Williamson-Haffner Company
DESIGNERS — ENGRAVERS

The United States Colortype Co.
GENERAL PRINTERS
(ALL UNDER ONE MANAGEMENT)
DENVER

The Automatic Typecaster } Pays for itself in about a year

The following table shows the average nine hours' output of the Automatic Typecaster, and the cost per pound compared with the prevailing NET prices per pound charged by type foundries.

¶ In figuring the cost of the product of the Automatic Typecaster, metal was charged at 14 cents per pound (a high figure), operator at \$2.50 per day, gas and power at 50 cents per day, wear and tear and interest on investment at \$1.00 per day.

Cost of Type, nine sizes, when cast on the AUTOMATIC TYPECASTER				Cost of same quantity of Type at prevailing TYPEFOUNDRY NET PRICES					
Point Body	Daily Output in lbs.	Cost per lb.	Total Cost	1st Class Prices		2d Class Prices		2d Class Special Prices	
				Per lb.	Total Cost	Per lb.	Total Cost	Per lb.	Total Cost
6	15	\$0.40 $\frac{2}{3}$	\$6.10	\$0.61	\$ 9.15	\$1.10	\$16.50	\$1.22	\$18.30
8	20	.34	6.80	.50	10.00	.85	17.00	.95	19.00
10	25	.30	7.50	.44	11.00	.70	17.50	.78	19.50
12	30	.27 $\frac{1}{3}$	8.20	.40	12.00	.62	18.60	.70	21.00
14	36	.25 $\frac{1}{3}$	9.04	.38	13.68	.58	20.88	.66	23.76
18	42	.23 $\frac{1}{2}$	9.88	.38	15.96	.57	23.94	.62	26.04
24	48	.22 $\frac{1}{3}$	10.72	.38	18.24	.53	25.44	.60	28.80
30	54	.21 $\frac{1}{2}$	11.56	.38	20.52	.53	28.62	.59	31.86
36	60	.20 $\frac{2}{3}$	12.40	.38	22.80	.53	31.80	.59	35.40

The difference in the cost of nine days' output of the Automatic Typecaster, compared with foundry prices, is as follows:

Compared with foundry first-class prices, the difference in favor of the user of the Automatic Typecaster is \$ 51.15

Compared with foundry second-class prices, the difference in favor of the user of the Automatic Typecaster is 118.08

Compared with foundry second-class special prices, the difference in favor of the user of the Automatic Typecaster is 141.46

EVERYTHING FOR THE ELECTROTYPED	EVERYTHING FOR THE STEREOTYPED	EVERYTHING FOR THE PHOTO-ENGRAVER	Composing-room Equipments Pressroom Equipments
------------------------------------	-----------------------------------	--------------------------------------	---

United Printing Machinery Company

BOSTON
246 Summer Street

NEW YORK
12-14 Spruce Street

CHICAGO
337-339 Dearborn Street

Monotype Prize Contests

That no composing machine has ever been put upon the market which offers the variety and range of money-making possibilities possessed by the Monotype we think is now generally admitted.

And yet we can truthfully say that no single user has discovered all the ways in which this remarkable machine may be made extraordinarily profitable.

Some have utilized to the full extent in one direction and others in another direction, but none to our knowledge has as yet discovered the limitations of its

profitableness; nor has any one office derived ALL of the benefits from ALL of the capabilities of which the Monotype is possessed.

Most users have found the machine so much of a help that they have been satisfied with less than it is capable of doing. For this reason we have determined to institute a series of prize contests among the men who are working Monotypes, in order to illustrate to all, by practical examples, what are its many varied uses, and to show what are its real capabilities of output.

That the contest promises to be interesting as well as profitable to all who watch it closely, the following incidents will show:

One of our customers recently sent us printed samples of a circular in imitation of the Hammond italic typewriter; he says: "We gathered it in at a fancy price, and the imitation is really first-class. There seems to be no limit to the stunts the machine will do. We have just gobbled up a \$400 contract for tabular work that we couldn't have touched without a Monotype."

From another customer we received an immense specimen of tabular work set up in 12-point gothic figures; it is ten columns wide, and measures a foot and a half in width, and over three and a half feet in length, and the form weighed nearly 200 lbs. It is a job that none but a Monotype house could do profitably, and it brought a handsome price.

From a printer who had never handled large work until he used the Monotype we received a 1,230-page catalogue, measuring 8 x 11, made up of tabular and descriptive matter. He was able to set up the whole job at one time, and keep the type standing for its next year's issue—a thing he would not possibly have done without the Monotype, as it contained 27,000 lbs. of type.

Then we frequently get reports from operators and foremen, calling attention to record outputs which are very flattering. A recent one stated, "This operator averages between 5,000 and 6,000 ems per hour on all kinds of work, and easily sets 1,500 ems per hour more than either of the other two operators. I measured up a little string of figure work he was doing yesterday; the bulk of it was figures, and measured 4,980 ems for 25 minutes' work."

A proprietor said he had almost paid for his entire equipment in one year; that is, from the saving in both composition and foundry bills.

The above will indicate that many surprises are in store for the printing trade, and we suggest that proprietor and employee alike pay close attention to the facts developed by the contest which we are about to inaugurate.

TERMS OF THE CONTESTS

Until further notice a series of three independent contests shall occur each month.

Monotype Prize Contests

Contest A 1 For the best record of Speed a prize of \$30, divided as follows: To the keyboard operator, \$10. To the caster operator, \$10. To the foreman in charge, \$10.

Contest B 1 For the best record of Profit-making, \$30. To the keyboard operator, \$10. To the caster operator, \$10. To the foreman in charge, \$10.

Contest C 1 For the best record on Range, or Scope, \$30. To the keyboard operator, \$10. To the caster operator, \$10. To the foreman in charge, \$10.

Each record must be sent us completely described, with two samples of the work, and a statement clearly written, signed by the foreman in charge and attested by a proprietor of the office in which it was done, setting forth the facts.

Each record shall be entered in the contest of its class occurring during the month of its receipt.

As there is not sufficient room to detail all the particulars of the contest, we have prepared directions which we shall be glad to forward, upon application, to any Monotype operator, or foreman in charge of a Monotype plant, or to the proprietor of a printing-office where Monotypes are installed.

Monthly we shall publish the names and addresses of winners, and shall give detailed accounts of their achievements.

In conclusion, we need only say that these contests will tend to stimulate the personal interest of every individual who uses the Monotype, whether he be proprietor or foreman, and that the consequent revelations will arouse a profound interest among printers everywhere.

We know of operators who are doing more with their machines than their employers are aware of, and if, through these contests, the "boss's" attention shall be drawn to the exceptional work of an employee, we feel that we shall have been of great service to both. And perhaps there are foremen who are managing their plants with a degree of skill that is often unknown to their proprietors, and who can not lay the facts before them without appearing to be egotistical. If, by means of these contests, a proprietor's attention shall be drawn to the exceptional ability of his foreman, good to both will result.

Finally, if, by means of these contests, we are enabled to show the printers of the United States the many great advantages that are possessed by the Monotype over other mechanical typesetters, we shall have done a service to them, and to ourselves, and justice to that remarkable machine.

We want every Monotype operator to interest himself in these contests, and to send for detailed particulars; we want every foreman in charge of a Monotype plant to do the same, and we want every owner of a Monotype to lend his hearty co-operation.

Our monthly magazine, "Monotypit," which is devoted to machine composition and fun, will assist all those who desire to participate, and is free to every printer who will send us his name and address. Be he owner or devil, or employed, or employed in any capacity whatever in a printing-office, he may receive it regularly for the asking.

THE MONOTYPE WOOD & NATHAN CO., Sole Selling Agents
1 Madison Ave., New York City

Combination Offer No. 1

BOOK OF DESIGNS. Containing 250 advertisements submitted in competition by compositors. A valuable comparative study in ad. composition. Regular price, **\$0.40**

PRINTERS' SPECIMENS. A portfolio of some three dozen specimens of high art commercial work, in one and two colors, on harmonious tinted and white paper, and samples of half-tone and three-color work. "The Half-tone Screen and Its Relation to Paper," included in this portfolio, is a valuable exposition of the subject treated. Regular price **\$1.00**

ART BITS. A selection of artistic bits of half-tone and three-color work, neatly mounted on uniform size stock, being a collection of engravers' proofs and etchings. A most interesting portfolio of beautiful art subjects. Regular price **\$1.00**
\$2.40

SPECIAL PRICE: \$1.00 FOR THE THREE

Sent prepaid to any address on receipt of price.

The Inland Printer Company

120-130 Sherman Street, CHICAGO

The Principles of Design

By Ernest A. Batchelder

Throop Polytechnic Institute, Pasadena, Cal.

A definition of the Elementary Principles of Design with a Series of Problems leading from the simple to the complex. Contains over one hundred plates in black-white and half-tone. Of value to Designers, Teachers and Students. Price, Three Dollars, net

Published by The Inland Printer Company

120-130 Sherman Street, Chicago, Ill.

To COLORADO

\$30

ROUND TRIP From Chicago to Denver, Colorado Springs and Pueblo daily throughout the summer months; return limit October 31st. **\$25.00** first and third Tuesday of each month; return limit 21 days, and daily July 10th to 15th, inclusive; return limit August 20th.

Only one night to Denver from Chicago and the Central States, via the handsomely equipped Colorado Special.

There are two trains daily to Colorado over the only double-track railway between Chicago and the Missouri River, via the

Chicago, Union Pacific & North-Western Line

Send 4 cents in stamps for booklets, maps, hotel lists and full information.

CS203

W. B. KNISKERN, P. T. M., Chicago & North-Western Ry., CHICAGO, ILL.

Only Line through Cincinnati

Connecting in Union Depot with all
SOUTHERN ROADS

Big Four Route

HAS THIS ADVANTAGE

SCHEDULE			
LEAVE	9.00 A.M.	6.00 P.M.	ARRIVE
CHICAGO	1.00 P.M.	9.05 P.M.	CINCINNATI
DAILY	8.30 P.M.	7.10 A.M.	DAILY
	11.30 P.M.	7.45 A.M.	

CINCINNATI NIGHT EXPRESS carries Pullman's latest designed open Buffet Sleeper and Compartment Car to Cincinnati; also Sleeper to Louisville.

THE NEW MIDNIGHT TRAIN (Queen City Special) carries Pullman's newest Standard and Compartment Sleepers to Cincinnati and Local Sleeper to Indianapolis.

Sleepers open for passengers after 9:30 P.M.

For Tickets and Reservation to Cincinnati and all points South, apply to

Ticket Office, 238 Clark Street

Depot, 12th Street Station

I. P. SPINING, G. N. A.

\$60

Summer Excursion Rate from St. Paul, Minneapolis and
Duluth (from Chicago, \$75), June 1 to Sept. 15,
1906, to the Pacific Northwest and the

Puget Sound Country

This very low rate places *within reach of all* an outing on the shores of the "Mediterranean of America," at the summer resorts and in the beautiful North Coast cities of Seattle, Tacoma and Portland, or in any of a thousand delightful places in the great mountain ranges. It's a country you should know. No more pleasurable trip in all America, with the side trip *en route*,

TO

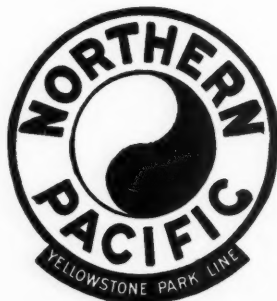
Yellowstone National Park

Via the

Gardiner Gateway

A region of crowning scenic glories — "Wonderland of the World." If you will send a post card to A. M. CLELAND, General Passenger Agent, St. Paul, Minn., you will receive a folder giving full information by return mail. "Wonderland, 1906," six cents. For full information about rates and trains write

C. A. MATTHEWS, G. A. P. D.,
208 SOUTH CLARK STREET,
CHICAGO, ILL.



NORTHERN PACIFIC RAILWAY

"Direct to the North Pacific Coast Country"

"The Land of the Sky" and the "Beautiful Sapphire Country"

in Western North Carolina

are now being discussed by the Tourist and the Healthseeker

The Southern Railway

In connection with

Queen & Crescent Route

provides the very best facilities for reaching Hot Springs,
Asheville, Brevard and Lake Toxaway, located in
this favored section of the Southern country



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	DAILY
Lv. CHICAGO, Big 4 Route,	9.00 A.M.
Lv. CHICAGO, Pennsylvania Lines	10.00 A.M.
Lv. CHICAGO, Monon Route	12.00 Noon.
Lv. CINCINNATI, Q. & C. Route	8.10 P.M.
Ar. KNOXVILLE, Southern Railway	7.30 A.M.
Ar. HOT SPRINGS, Southern Railway	12.45 Noon.
Ar. ASHEVILLE, Southern Railway	2.15 P.M.
Ar. BREVARD, Southern Railway	7.40 P.M.
Ar. LAKE TOXAWAY, Southern Railway . . .	8.55 P.M.

For particulars, write:

J. S. McCULLOUGH,
225 Dearborn Street,
Phone, Harrison 2909. Chicago, Ill.

G. B. ALLEN,
Asst. Gen. Pass. Agt.,
St. Louis, Mo.

S. H. HARDWICK,
Pass. Traffic Manager,
Washington, D. C.

W. H. TAYLOR,
Gen. Passenger Agent,
Washington, D. C.

Through sleepers Cincinnati to Asheville, and
chair cars Asheville to Lake Toxaway.

Excellent route via Louisville.

Through sleeper Louisville to Knoxville, leaving
7.45 p. m., arriving Knoxville 7.30 a. m.

Special Research Laboratory—Problems of manufacture investigated; reports and opinions.
Analysis Instruments designed and their construction supervised. Special tests.
Mechanical-Electrical Examinations made. Practical shop experience enables me to correctly design, supervise and test out all kinds of devices.
Expert Opinions on the practicability of ideas, patentability, scope of claims, operativeness, cost of construction, etc.

After a number of years' residence abroad, I have personally selected correspondents in London, Paris and Berlin.
 Member of the Royal Photographic Society and Society of Arts, London.
 Associate member, American Institute of Electrical Engineers, New York.

N. S. AMSTUTZ,
 130 Sherman St., Chicago, Ill.

Phone, Harrison 4280

For Printing Imitation Typewritten or Form Letters of all kinds, we manufacture a fine line of Supplies, to be used in connection with our Typewriter Ribbons in filling in the name and address.

CARBON PAPERS

All kinds specially adapted for the Printing Trade, for all forms of Manifold Books.

MITTAG & VOLGER

Manufacturers for the Trade
 PARK RIDGE NEW JERSEY

WHITMORE MFG. CO.

HOLYOKE, MASS.

MANUFACTURE BEST GRADES OF

Surface Coated PAPERS AND CARD BOARD

Especially adapted for Lithographing and Three-color Work.

DISPLACES BENZINE

Non-explosive. More Economical.
 Used by U. S. Government and thousands of printers.
 Reduces insurance rates nearly 25 per cent.
 Preserves rollers. Devoid of gum or sediment.

TARCOLIN

TRADE-MARK.

Sole manufacturers of non-inflammable solvents and detergents for all purposes, under the following trade-marks: Anti-Benzine, Tarcolin, Rockolin, Alcolin, Dissolin and Pyronil. Write for booklet.

-ADDRESS

Delete Chemical Co.
 126 William St., New York

TELEPHONES { MAIN 2541
 AUTOMATIC 6541

Slade, Hipp & Meloy
 139 Lake St., Chicago INC.

BOOKBINDERS' SUPPLIES
 PAPER BOX MAKERS' SUPPLIES
 EGG CASES AND FILLERS

Straw Boards Auburn Cloth Board
 W. O. Davey & Sons' Tar Board
 Wood Pulp and Jute Board
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COPPER AND ZINC PLATES

MACHINE GROUND AND POLISHED

CELEBRATED SATIN FINISH BRAND

FOR PHOTO-ENGRAVING AND ETCHING

MANUFACTURED BY

THE AMERICAN STEEL & COPPER PLATE CO.

116 NASSAU STREET, NEW YORK, N. Y.

CARBON BLACK

MADE BY

GODFREY L. CABOT
 BOSTON, MASS.

ECLIPSE. DIAMOND.
 ELF. B. B. B. BANNER.

If in a hurry, send your forms to the



ATLAS
 ELECTROTYPE
 COMPANY

We do electrotyping only, and give prompt service and best work. We can please you.

Out-of-town work solicited.

76 TO 82 SHERMAN ST., CHICAGO

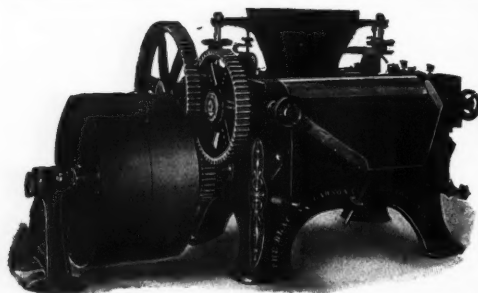
Practical Guide to Embossing

TELLS ALL ABOUT EMBOSsing
 HOW TO DO IT ON AN ORDINARY JOB PRESS

The best work yet published. You should have one.

The above is the title of a new edition of "A Practical Guide to Embossing," just published. The work is a 32-page pamphlet, with full directions for making dies and doing embossing on job presses. Besides samples of embossing on both inside and outside of cover, it has two pages in the center of various kinds of embossed work in gold, red and blue. No printer should fail to have one of these books. Country printers are especially asked to examine it. Price, 75 cents, postpaid.

116 Nassau Street New York. The Inland Printer Co. 130 Sherman St. Chicago.



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 HAMILTON, OHIO

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PAPER and PULP MILL
MACHINERY

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SATURATING AND DRYING MACHINERY,
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Write us for prices and further particulars.

L. Martenson & Co.
 MACHINISTS

PRINTERS' and
BOOKBINDERS'
MACHINERY

A SPECIALTY

140 Monroe St., CHICAGO

**CONCERNING
TYPE**

A HANDBOOK
FOR USERS OF
PRINTING

64 pages—Flexible Cover—8 x 6 inches—a size
and shape most convenient for
pocket or desk use.

A CYCLOPEDIA
OF
EVERY-DAY INFORMATION
FOR THE
NON-PRINTER
ADVERTISING MAN

Ever feel the lack of technical printing knowledge?
"Concerning Type" tells all about type, how it is
divided into text and display faces, explains the point
system, shows eighteen kinds of type—each in seven
sizes; contains valuable information about engravings,
composition, proofreading, paper, presswork, binding,
estimating, a complete dictionary of printing terms and
a hundred other things you should know—but probably
don't. Endorsed by every one who knows a good thing
when they see it.

Price, 50 Cents, postpaid.

THE INLAND PRINTER CO.

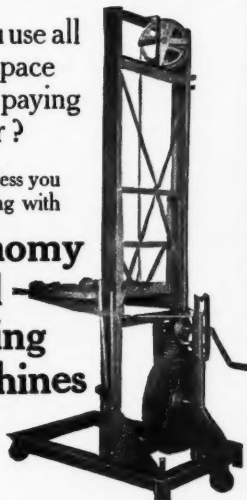
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STOCK-ROOM CROWDED?

Do you use all
of the space
you are paying
rent for?

Not unless you
are piling with

**Economy
Steel
Tiering
Machines**



ECONOMY ENGINEERING CO.
58-64 N. Jefferson St., Chicago, Ill.

Foreign Agents: Parsons Bros., New York

Pressmen's OVERLAY KNIFE

This Knife has been subjected to a careful test for
quality of temper. It will be found to hold a keen
edge and to be of much flexibility, enabling the
operator to divide a thin sheet of paper very deli-
cately. In all respects it is of superior manufac-
ture. The blade runs the entire length of the
handle and is of uniform temper throughout. As
the knife wears, cut away the covering as required.

PRICE, POSTPAID, 25 CENTS

THE INLAND PRINTER CO.

120-130 SHERMAN STREET :: CHICAGO
116 NASSAU STREET :: NEW YORK CITY

Star Engravers'
Supply
Co.

GLOSSOID BRAND

TRADE MARK REGISTERED
POLISHED ZINC AND COPPER PLATES

81-83
FULTON ST.,
NEW YORK CITY,
U.S.A.

Modernizing Printing Plants

A
Specialty

Plans, Specifications and Supervision of
New Buildings, Power Plants,
Motor Equipments,
Lighting.

Full Architectural and Engineering Services.

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WALTER S. TIMMIS

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150 NASSAU ST., NEW YORK.

Cable, TIMMIS, New York.

Telephone, 4759 Beekman.

Quality Metals

for printers are the kind
BLATCHFORD makes —
Linotype, Monotype,
Stereotype, etc., etc.

E. W. Blatchford Co.
CHICAGO, U. S. A.

EASTERN OFFICE — 5 Beekman St., New York

AMERICA'S MOST POPULAR RAILWAY

CHICAGO
AND
ALTON

PERFECT PASSENGER SERVICE

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